

Rubber Interlaboratory Testing Program

Summary Report #161- 3rd Qtr 2009

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| 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 |
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ABOUT THE PROGRAM

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

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

ABOUT CTS

Founded in 1971, CTS is a privately-owned company that specializes in interlaboratory tests for a wide variety of industrial sectors, including rubber, plastics, fasteners and metals, containerboard, paper and color, as well as proficiency tests for forensic laboratories. All of the tests are designed to assist organizations in achieving and maintaining quality control objectives. More than 2400 labs from the U.S., as well as more than 55 countries, currently participate in the CTS programs.

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| | |
|---------------------------------------|---|
| WebCode | Assigned laboratory identification number (temporary) used to ensure lab confidentiality while permitting a lab to locate its data in the Rubber Report published on the CTS Web site. The WebCode for each analysis can be found in the Performance Analysis Report mailed to each participant. |
| Lab Mean | Tensile & Hardness: the average of the median values obtained for each sample. All other tests: the average of the test results obtained by the participant. |
| Grand Mean | The average of the LAB MEANS for all included participants. Laboratories flagged with an X or an M (see DATA FLAG column) are excluded from the GRAND MEAN. |
| Difference from Grand Mean | The difference of the LAB MEAN from the GRAND MEAN. |
| Between-Lab Standard Deviation | An indication of the precision of measurement between the laboratories. The greater the spread of the LAB MEANS about the GRAND MEAN, the larger the BETWEEN-LAB STANDARD DEVIATION (and vice versa). |
| Comparative Performance Value | An indication of how well a laboratory's results agree with the other participants. The CPV is a ratio indicating the number of standard deviations from the GRAND MEAN. The closer a laboratory's COMPARATIVE PERFORMANCE VALUE is to zero, the more consistent its results are with the other participants' data (and vice versa). The critical value for each CPV will vary depending on the number of labs participating in a test. |
| Inst Code | If instruments are tracked in a test, a code indicating the manufacturer of the instrument used to perform the test (see separate INSTRUMENT CODE LIST for each test section). |
| Data Flag | DATA FLAGS are assigned based on the simultaneous analysis of both samples tested. Refer to the following chart for an explanation of each symbol: |

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

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

Common Problems Highlighted in Footnotes

1. **Extreme data** - The laboratory's results for one or both samples are so inconsistent with those of the other participants that the lab mean(s) fall outside the plot. (The data usually vary by more than three standard deviations from the grand mean.) The participant is advised to immediately review his data and/or testing procedure.
2. **Systematic bias** - The laboratory's results are either consistently high or low for both samples when compared to the other participants (the plotted point falls near the top or bottom of the ellipse). This indicates that the participant is performing the test with a constant bias. Causes of systematic errors include improper calibration, the particular make/model of equipment or a modification to the testing procedure.
3. **Inconsistency in testing between samples/sample sets** - The laboratory's results indicate that there are differences in the way the two samples tested (the plotted point falls to the side of the ellipse). This type of error may be attributed to the analyst deviating from the procedure when testing one of the samples or a material interaction occurrence with the instrument or room conditions. The inconsistency is reflected in the CPVs for the two samples, such as a +1.5 CPV for sample A and a -2.2 CPV for sample B. CTS also will specify if the laboratory's data for one sample are high/low compared to the other participants. If this inconsistency is slight, the lab's plotted point will be an * that falls on the edge of the ellipse.
4. **Inconsistency in testing within a sample** - The laboratory's within-lab standard deviation for a specified sample is high when compared to the other participants, often causing the lab's plotted point to fall outside of the ellipse.
5. **Data appeared to be off by a factor of # and was corrected by CTS** - In tests that involve computations, the results reported to CTS may be off by a factor. If this factor can easily be determined, CTS may correct the data and flag the participant. Occasionally CTS will correct a laboratory's results even though the data are still high or low when compared to the other participants. This is done so that the laboratory may be alerted to other possible errors in its testing procedure.
6. **Data for two samples (or two tests) appeared to be switched by the lab, and the error was corrected by CTS.**

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

Rubber Interlaboratory Testing Program

Analysis 605

Tensile Strength (psi)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 1GLQ8B | | 3,147.3 | 69.6 | 0.48 | 3,082.1 | -3.8 | -0.02 | ZZ |
| 1ZG76T | | 3,353.2 | 275.5 | 1.90 | 3,333.3 | 247.4 | 1.58 | ZZ |
| 29VEX8 | | 3,159.0 | 81.3 | 0.56 | 3,235.0 | 149.1 | 0.95 | ZZ |
| 2ACML | | 3,129.5 | 51.8 | 0.36 | 3,180.0 | 94.1 | 0.60 | ZZ |
| 2QZ8N9 | | 3,279.5 | 201.8 | 1.39 | 3,204.5 | 118.6 | 0.76 | ZZ |
| 2SCUJV | | 3,033.5 | -44.2 | -0.31 | 2,996.5 | -89.4 | -0.57 | ZZ |
| 3G658K | | 2,999.5 | -78.2 | -0.54 | 2,999.5 | -86.4 | -0.55 | ZZ |
| 3HYCYA | | 2,885.8 | -191.9 | -1.33 | 2,906.2 | -179.7 | -1.15 | ZZ |
| 3TSSSS | | 3,057.0 | -20.7 | -0.14 | 3,118.0 | 32.1 | 0.20 | ZZ |
| 4M4Z6Y | | 3,042.5 | -35.2 | -0.24 | 3,092.0 | 6.1 | 0.04 | ZZ |
| 4MMHW | | 3,101.5 | 23.8 | 0.16 | 3,242.0 | 156.1 | 1.00 | ZZ |
| 5VJKZ8 | | 3,149.5 | 71.8 | 0.50 | 3,098.0 | 12.1 | 0.08 | ZZ |
| 5WJE2C | | 3,228.0 | 150.3 | 1.04 | 3,182.0 | 96.1 | 0.61 | ZZ |
| 68DTZN | | 3,018.2 | -59.6 | -0.41 | 3,033.8 | -52.1 | -0.33 | ZZ |
| 6JKJ4W | * | 2,697.7 | -380.0 | -2.63 | 2,705.0 | -380.9 | -2.43 | ZZ |
| 6NZ6RF | | 2,872.5 | -205.2 | -1.42 | 2,924.5 | -161.4 | -1.03 | ZZ |
| 712ZVX | | 3,231.5 | 153.7 | 1.06 | 3,126.3 | 40.4 | 0.26 | ZZ |
| 7F7Y9M | | 3,004.5 | -73.2 | -0.51 | 3,061.0 | -24.9 | -0.16 | ZZ |
| 7GEUK7 | | 2,903.0 | -174.8 | -1.21 | 2,932.7 | -153.2 | -0.98 | ZZ |
| 7TL6WT | | 2,890.0 | -187.7 | -1.30 | 2,888.5 | -197.4 | -1.26 | ZZ |
| 7TY3PT | | 3,349.8 | 272.1 | 1.88 | 3,404.7 | 318.7 | 2.03 | ZZ |
| 81P47Q | | 3,087.5 | 9.8 | 0.07 | 3,104.0 | 18.1 | 0.12 | ZZ |
| 82BUZG | | 3,104.5 | 26.8 | 0.19 | 3,121.0 | 35.1 | 0.22 | ZZ |
| 8E1TVQ | | 3,193.5 | 115.8 | 0.80 | 3,021.5 | -64.4 | -0.41 | ZZ |
| 8VQ949 | | 3,295.5 | 217.8 | 1.51 | 3,337.8 | 251.9 | 1.61 | ZZ |
| 8WX2SB | | 3,080.5 | 2.8 | 0.02 | 3,157.3 | 71.4 | 0.46 | ZZ |
| 93S5XE | | 3,001.5 | -76.2 | -0.53 | 2,839.0 | -246.9 | -1.57 | ZZ |
| 9DXPFF | | 3,339.0 | 261.3 | 1.81 | 3,377.5 | 291.6 | 1.86 | ZZ |
| 9FIXET | X | 2,584.5 | -493.2 | -3.41 | 2,544.0 | -541.9 | -3.46 | ZZ |
| 9KB17F | | 2,925.0 | -152.7 | -1.06 | 2,864.0 | -221.9 | -1.42 | ZZ |
| 9L4VVK | | 3,210.0 | 132.3 | 0.91 | 3,146.5 | 60.6 | 0.39 | ZZ |
| 9M8R2F | | 3,125.0 | 47.3 | 0.33 | 3,190.0 | 104.1 | 0.66 | ZZ |
| 9MW223 | | 3,182.0 | 104.3 | 0.72 | 3,240.5 | 154.6 | 0.99 | ZZ |
| A6LY2P | | 2,851.5 | -226.3 | -1.56 | 3,028.4 | -57.5 | -0.37 | ZZ |
| ADF82J | | 2,898.8 | -179.0 | -1.24 | 2,851.5 | -234.4 | -1.50 | ZZ |

Rubber Interlaboratory Testing Program

Analysis 605

Tensile Strength (psi)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| ALJJQK | | 3,053.0 | -24.7 | -0.17 | 3,068.0 | -17.9 | -0.11 | ZZ |
| BNASYD | | 2,955.5 | -122.2 | -0.84 | 2,881.9 | -204.0 | -1.30 | ZZ |
| BY56GX | | 3,133.2 | 55.4 | 0.38 | 3,117.4 | 31.5 | 0.20 | ZZ |
| C3SD6V | | 2,944.5 | -133.2 | -0.92 | 3,053.0 | -32.9 | -0.21 | ZZ |
| CXHBSE | | 3,026.0 | -51.7 | -0.36 | 3,084.0 | -1.9 | -0.01 | ZZ |
| D3SUSL | | 3,024.0 | -53.7 | -0.37 | 3,040.0 | -45.9 | -0.29 | ZZ |
| DEFW37 | | 3,114.9 | 37.2 | 0.26 | 3,036.7 | -49.3 | -0.31 | ZZ |
| DG4D7D | * | 2,988.5 | -89.2 | -0.62 | 2,784.5 | -301.4 | -1.92 | ZZ |
| E8XRD6 | | 3,086.5 | 8.8 | 0.06 | 3,162.5 | 76.6 | 0.49 | ZZ |
| EGZFB9 | | 3,197.4 | 119.6 | 0.83 | 3,264.8 | 178.9 | 1.14 | ZZ |
| EKGZHS | | 2,977.0 | -100.7 | -0.70 | 3,041.5 | -44.4 | -0.28 | ZZ |
| EWP359 | | 2,987.1 | -90.7 | -0.63 | 3,011.8 | -74.2 | -0.47 | ZZ |
| F1PDBU | | 3,192.5 | 114.8 | 0.79 | 3,199.0 | 113.1 | 0.72 | ZZ |
| F4D7LN | | 2,774.0 | -303.7 | -2.10 | 2,880.5 | -205.4 | -1.31 | ZZ |
| FBSLCB | | 3,001.5 | -76.2 | -0.53 | 3,132.5 | 46.6 | 0.30 | ZZ |
| FH8QZZ | | 2,818.8 | -258.9 | -1.79 | 2,899.3 | -186.6 | -1.19 | ZZ |
| FJTEDD | | 3,139.5 | 61.8 | 0.43 | 3,192.0 | 106.1 | 0.68 | ZZ |
| FUR2VA | | 3,288.0 | 210.3 | 1.45 | 3,325.5 | 239.6 | 1.53 | ZZ |
| G74FUG | | 3,205.0 | 127.3 | 0.88 | 3,165.0 | 79.1 | 0.50 | ZZ |
| GSAAZ7 | | 3,069.5 | -8.2 | -0.06 | 3,020.0 | -65.9 | -0.42 | ZZ |
| GYJPQH | | 3,178.8 | 101.1 | 0.70 | 3,188.7 | 102.8 | 0.66 | ZZ |
| H3B3W5 | | 3,012.5 | -65.2 | -0.45 | 3,015.0 | -70.9 | -0.45 | ZZ |
| H6SPDQ | | 3,242.0 | 164.3 | 1.14 | 3,247.0 | 161.1 | 1.03 | ZZ |
| HN71Y4 | | 3,269.0 | 191.3 | 1.32 | 3,275.5 | 189.6 | 1.21 | ZZ |
| JAQQM7 | * | 3,205.4 | 127.6 | 0.88 | 3,002.3 | -83.6 | -0.53 | ZZ |
| JCJX6Q | | 3,123.0 | 45.3 | 0.31 | 3,081.0 | -4.9 | -0.03 | ZZ |
| JTDTSZ | | 3,260.5 | 182.8 | 1.26 | 3,351.8 | 265.8 | 1.70 | ZZ |
| KHMSF4 | | 3,187.5 | 109.8 | 0.76 | 3,158.5 | 72.6 | 0.46 | ZZ |
| KY4N36 | | 3,108.2 | 30.5 | 0.21 | 3,038.6 | -47.4 | -0.30 | ZZ |
| LCUKDU | | 3,052.3 | -25.4 | -0.18 | 2,912.4 | -173.5 | -1.11 | ZZ |
| LQBLMF | | 3,020.5 | -57.2 | -0.40 | 3,080.0 | -5.9 | -0.04 | ZZ |
| MYN8NF | | 3,245.0 | 167.3 | 1.16 | 3,393.5 | 307.6 | 1.96 | ZZ |
| N5MCS5 | | 3,107.5 | 29.7 | 0.21 | 3,093.0 | 7.0 | 0.04 | ZZ |
| N8JFHJ | | 2,927.0 | -150.7 | -1.04 | 2,956.0 | -129.9 | -0.83 | ZZ |
| NSGPRF | | 3,075.6 | -2.2 | -0.02 | 3,024.8 | -61.1 | -0.39 | ZZ |

Rubber Interlaboratory Testing Program

Analysis 605

Tensile Strength (psi)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| P418BQ | | 3,231.0 | 153.3 | 1.06 | 3,309.5 | 223.6 | 1.43 | ZZ |
| Q5GEWZ | | 2,826.0 | -251.7 | -1.74 | 2,900.0 | -185.9 | -1.19 | ZZ |
| Q65R1R | | 3,046.6 | -31.2 | -0.22 | 3,224.4 | 138.5 | 0.88 | ZZ |
| QDWBY | | 3,005.0 | -72.7 | -0.50 | 3,046.5 | -39.4 | -0.25 | ZZ |
| QLZ79X | | 3,277.2 | 199.4 | 1.38 | 3,244.5 | 158.6 | 1.01 | ZZ |
| R1CFPC | X | 2,551.6 | -526.2 | -3.64 | 2,582.4 | -503.6 | -3.21 | ZZ |
| RHBH45 | | 3,095.3 | 17.6 | 0.12 | 3,183.7 | 97.8 | 0.62 | ZZ |
| RKTDGR | | 3,073.4 | -4.4 | -0.03 | 3,097.3 | 11.4 | 0.07 | ZZ |
| RQZ6AM | | 3,180.5 | 102.8 | 0.71 | 3,378.0 | 292.1 | 1.86 | ZZ |
| S5FTH4 | | 3,154.0 | 76.3 | 0.53 | 3,179.0 | 93.1 | 0.59 | ZZ |
| S6F9W7 | | 3,126.0 | 48.3 | 0.33 | 3,116.5 | 30.6 | 0.19 | ZZ |
| SLCKLY | | 3,030.6 | -47.1 | -0.33 | 3,098.8 | 12.8 | 0.08 | ZZ |
| ST5M1P | | 3,213.0 | 135.3 | 0.94 | 3,202.5 | 116.6 | 0.74 | ZZ |
| SZWTX4 | | 3,005.5 | -72.2 | -0.50 | 3,017.0 | -68.9 | -0.44 | ZZ |
| T14MXW | | 3,204.0 | 126.3 | 0.87 | 3,161.0 | 75.1 | 0.48 | ZZ |
| T8YRRX | * | 2,678.0 | -399.7 | -2.76 | 2,735.0 | -350.9 | -2.24 | ZZ |
| TBXKCA | | 3,155.3 | 77.6 | 0.54 | 2,988.5 | -97.4 | -0.62 | ZZ |
| TC8HN7 | | 2,971.5 | -106.2 | -0.73 | 3,028.5 | -57.4 | -0.37 | ZZ |
| TSADC6 | | 3,209.0 | 131.3 | 0.91 | 3,192.0 | 106.1 | 0.68 | ZZ |
| TXJS3G | | 3,096.6 | 18.8 | 0.13 | 3,096.6 | 10.7 | 0.07 | ZZ |
| U5L1MG | | 3,179.2 | 101.5 | 0.70 | 3,080.7 | -5.2 | -0.03 | ZZ |
| UFFJT9 | | 3,198.5 | 120.8 | 0.83 | 3,124.0 | 38.1 | 0.24 | ZZ |
| V12GZS | | 3,270.5 | 192.8 | 1.33 | 3,190.5 | 104.6 | 0.67 | ZZ |
| V7HP3J | | 2,863.1 | -214.7 | -1.48 | 2,901.5 | -184.4 | -1.18 | ZZ |
| VD2CUL | | 3,130.4 | 52.6 | 0.36 | 3,199.4 | 113.5 | 0.72 | ZZ |
| VQJWDG | | 3,235.0 | 157.3 | 1.09 | 3,265.5 | 179.6 | 1.15 | ZZ |
| VWNXN | | 2,997.5 | -80.2 | -0.55 | 2,917.0 | -168.9 | -1.08 | ZZ |
| VXVKY | | 3,087.2 | 9.4 | 0.07 | 3,196.9 | 111.0 | 0.71 | ZZ |
| WYZPVL | | 3,016.9 | -60.9 | -0.42 | 3,084.7 | -1.3 | -0.01 | ZZ |
| X9U9T4 | | 3,110.4 | 32.6 | 0.23 | 3,161.1 | 75.2 | 0.48 | ZZ |
| XA4BGN | * | 2,882.9 | -194.9 | -1.35 | 2,690.8 | -395.1 | -2.52 | ZZ |
| XCJ1A6 | * | 3,341.5 | 263.8 | 1.82 | 3,149.0 | 63.1 | 0.40 | ZZ |
| XEFHG2 | | 2,905.0 | -172.7 | -1.19 | 2,924.5 | -161.4 | -1.03 | ZZ |
| Y2TD44 | X | 2,544.5 | -533.2 | -3.69 | 2,404.0 | -681.9 | -4.35 | ZZ |
| YRK534 | | 2,901.0 | -176.7 | -1.22 | 2,777.0 | -308.9 | -1.97 | ZZ |

Analysis 605

Tensile Strength (psi)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| Z2CUGR | | 2,968.5 | -109.2 | -0.76 | 3,101.5 | 15.6 | 0.10 | ZZ |
| ZA29UF | * | 3,096.6 | 18.8 | 0.13 | 3,325.7 | 239.8 | 1.53 | ZZ |
| ZKKRB2 | | 2,750.7 | -327.1 | -2.26 | 2,759.4 | -326.6 | -2.08 | ZZ |
| ZTKR11 | | 2,990.0 | -87.8 | -0.61 | 3,072.7 | -13.3 | -0.08 | ZZ |
| ZVSRH1 | | 2,890.5 | -187.2 | -1.29 | 2,809.0 | -276.9 | -1.77 | ZZ |
| ZZ6KEL | | 3,183.6 | 105.9 | 0.73 | 3,147.3 | 61.4 | 0.39 | ZZ |

Summary Statistics

Grand Means

3,077.74 psi

3,085.93 psi

Std Dev Btwn Labs

144.66 psi

156.79 psi

Statistics based on 108 of 111 reporting participants

Summary Statistics in SI Units

Grand Means

21.220 MPa

21.28 MPa

Std Dev Btwn Labs

0.997 MPa

1.08 MPa

Statistics based on 108 of 111 reporting participants

Samples C91-C92: Polyisoprene compound, batch #1 & C93-C94: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #605

9F1XET (X) - Data for all Samples are low. Possible Systematic Error.

R1CFPC (X) - Data for both samples are low. Possible Systematic Error.

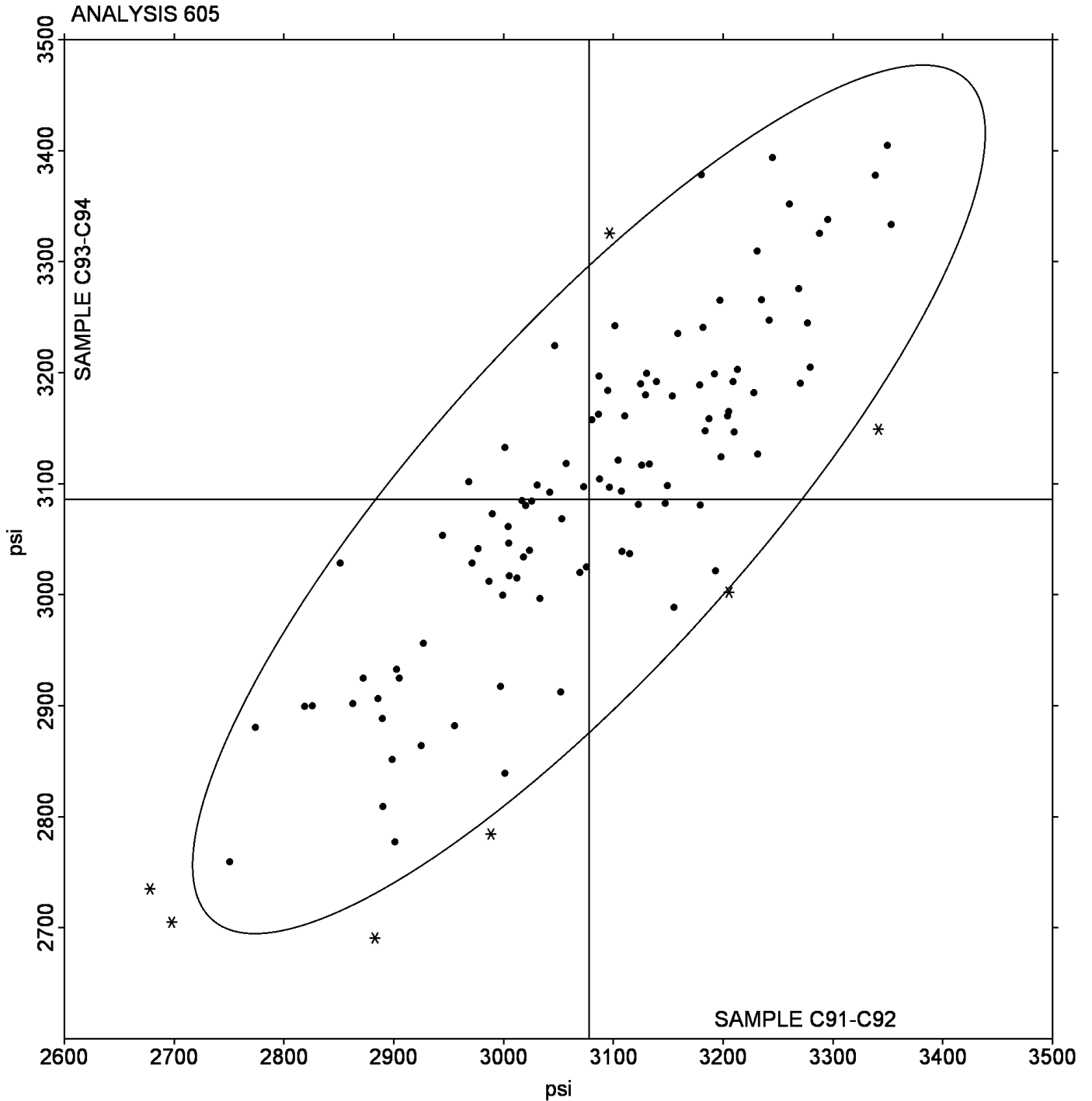
Y2TD44 (X) - Data for all samples are low. Also inconsistent in testing within Samples C93-C94.

Analysis 605

Tensile Strength (psi)

Grand Mean Sample C91-C92 = 3,077.74 psi

Grand Mean Sample C93-C94 = 3,085.93 psi



Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 1J975C | X | 1,355.0 | 813.3 | 39.67 | 1,420.5 | 879.2 | 42.62 | ZZ |
| 1RN2CS | | 554.7 | 12.9 | 0.63 | 575.9 | 34.6 | 1.68 | ZZ |
| 1T2R6B | | 514.0 | -27.7 | -1.35 | 501.0 | -40.3 | -1.95 | ZZ |
| 1Y91VD | | 548.0 | 6.3 | 0.31 | 535.5 | -5.8 | -0.28 | ZZ |
| 2QLKJ2 | | 559.5 | 17.8 | 0.87 | 528.0 | -13.3 | -0.64 | ZZ |
| 2W7R2U | | 573.5 | 31.8 | 1.55 | 563.5 | 22.2 | 1.08 | ZZ |
| 3SFN5A | | 551.0 | 9.3 | 0.45 | 555.0 | 13.7 | 0.66 | ZZ |
| 3YVFUM | | 542.0 | 0.3 | 0.01 | 549.0 | 7.7 | 0.37 | ZZ |
| 4EZF88 | | 554.5 | 12.8 | 0.62 | 543.0 | 1.7 | 0.08 | ZZ |
| 4J6WEX | | 546.0 | 4.3 | 0.21 | 553.5 | 12.2 | 0.59 | ZZ |
| 4L37VK | | 575.0 | 33.3 | 1.62 | 562.5 | 21.2 | 1.03 | ZZ |
| 4SJKEY | | 551.0 | 9.3 | 0.45 | 552.0 | 10.7 | 0.52 | ZZ |
| 4XLFZ5 | | 532.5 | -9.2 | -0.45 | 526.5 | -14.8 | -0.72 | ZZ |
| 4ZTL5K | | 555.5 | 13.8 | 0.67 | 551.0 | 9.7 | 0.47 | ZZ |
| 52SKVX | X | 467.0 | -74.7 | -3.64 | 468.5 | -72.8 | -3.53 | ZZ |
| 5HPBYS | | 507.5 | -34.2 | -1.67 | 507.5 | -33.8 | -1.64 | ZZ |
| 7A9GJV | | 545.0 | 3.3 | 0.16 | 535.0 | -6.3 | -0.30 | ZZ |
| 7E5RRV | X | 944.5 | 402.8 | 19.65 | 932.5 | 391.2 | 18.96 | ZZ |
| 7MVPSA | | 513.0 | -28.7 | -1.40 | 535.8 | -5.5 | -0.27 | ZZ |
| 7QYSTT | | 569.3 | 27.6 | 1.34 | 579.9 | 38.6 | 1.87 | ZZ |
| 86JAAC | X | 639.0 | 97.3 | 4.75 | 636.5 | 95.2 | 4.62 | ZZ |
| 8AD47E | | 536.0 | -5.7 | -0.28 | 527.0 | -14.3 | -0.69 | ZZ |
| 8CTDKD | | 544.0 | 2.3 | 0.11 | 540.5 | -0.8 | -0.04 | ZZ |
| 9GK7UK | | 534.0 | -7.7 | -0.38 | 545.5 | 4.2 | 0.20 | ZZ |
| 9LQV4M | | 564.0 | 22.3 | 1.09 | 559.0 | 17.7 | 0.86 | ZZ |
| 9ME7KW | | 529.1 | -12.6 | -0.61 | 541.0 | -0.3 | -0.02 | ZZ |
| A12TPD | | 550.5 | 8.8 | 0.43 | 567.5 | 26.2 | 1.27 | ZZ |
| A8B5FR | | 541.5 | -0.2 | -0.01 | 560.5 | 19.2 | 0.93 | ZZ |
| AAKYBY | | 548.5 | 6.8 | 0.33 | 543.0 | 1.7 | 0.08 | ZZ |
| ABS9VV | | 534.0 | -7.7 | -0.38 | 535.0 | -6.3 | -0.30 | ZZ |
| AE3HKD | | 528.5 | -13.2 | -0.64 | 540.5 | -0.8 | -0.04 | ZZ |
| AE7VCG | | 517.0 | -24.7 | -1.21 | 524.0 | -17.3 | -0.84 | ZZ |
| BJ7TT8 | | 557.6 | 15.9 | 0.77 | 551.7 | 10.4 | 0.51 | ZZ |
| BLTWMS | | 528.0 | -13.7 | -0.67 | 511.0 | -30.3 | -1.47 | ZZ |
| CQC327 | | 531.9 | -9.8 | -0.48 | 506.0 | -35.3 | -1.71 | ZZ |

Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| CUGBKV | | 556.5 | 14.8 | 0.72 | 566.5 | 25.2 | 1.22 | ZZ |
| DEF288 | | 537.5 | -4.2 | -0.21 | 537.5 | -3.8 | -0.18 | ZZ |
| DX1HZ9 | | 526.5 | -15.2 | -0.74 | 523.5 | -17.8 | -0.86 | ZZ |
| EQHVM | | 556.2 | 14.5 | 0.71 | 561.2 | 19.9 | 0.96 | ZZ |
| F22F7M | | 529.5 | -12.2 | -0.60 | 539.0 | -2.3 | -0.11 | ZZ |
| F38E7G | | 578.0 | 36.3 | 1.77 | 574.5 | 33.2 | 1.61 | ZZ |
| F59JNH | | 577.5 | 35.8 | 1.75 | 579.0 | 37.7 | 1.83 | ZZ |
| F7YGQ2 | | 514.0 | -27.7 | -1.35 | 530.0 | -11.3 | -0.55 | ZZ |
| F84HHE | | 549.0 | 7.3 | 0.36 | 542.5 | 1.2 | 0.06 | ZZ |
| FN7YQU | | 493.0 | -48.7 | -2.38 | 509.0 | -32.3 | -1.57 | ZZ |
| G9XNDY | | 529.0 | -12.7 | -0.62 | 540.0 | -1.3 | -0.06 | ZZ |
| GDPJZY | | 552.6 | 10.9 | 0.53 | 570.9 | 29.6 | 1.44 | ZZ |
| GJBKPQ | | 550.0 | 8.3 | 0.40 | 537.5 | -3.8 | -0.18 | ZZ |
| GV438W | | 558.5 | 16.8 | 0.82 | 555.0 | 13.7 | 0.66 | ZZ |
| GYACM | | 534.7 | -7.0 | -0.34 | 541.1 | -0.2 | -0.01 | ZZ |
| H4SQNC | | 532.8 | -9.0 | -0.44 | 518.5 | -22.8 | -1.10 | ZZ |
| HZY8K6 | | 535.0 | -6.7 | -0.33 | 533.0 | -8.3 | -0.40 | ZZ |
| JG59BS | | 539.0 | -2.7 | -0.13 | 554.5 | 13.2 | 0.64 | ZZ |
| JJZ4HE | | 495.0 | -46.7 | -2.28 | 492.0 | -49.3 | -2.39 | ZZ |
| JMDE5C | | 568.5 | 26.8 | 1.31 | 567.5 | 26.2 | 1.27 | ZZ |
| K2EN16 | | 561.5 | 19.8 | 0.97 | 547.1 | 5.8 | 0.28 | ZZ |
| K7FVT7 | | 548.0 | 6.3 | 0.31 | 523.0 | -18.3 | -0.89 | ZZ |
| K7RCFE | | 548.9 | 7.2 | 0.35 | 569.6 | 28.3 | 1.37 | ZZ |
| KAFT9 | | 545.0 | 3.3 | 0.16 | 544.0 | 2.7 | 0.13 | ZZ |
| KHYCLD | * | 478.5 | -63.2 | -3.08 | 485.0 | -56.3 | -2.73 | ZZ |
| KQQ9BG | | 557.0 | 15.3 | 0.75 | 567.0 | 25.7 | 1.25 | ZZ |
| M3JHTT | | 523.0 | -18.7 | -0.91 | 511.5 | -29.8 | -1.44 | ZZ |
| MY5XVF | | 510.0 | -31.7 | -1.55 | 522.5 | -18.8 | -0.91 | ZZ |
| N4DE39 | | 561.0 | 19.3 | 0.94 | 529.5 | -11.8 | -0.57 | ZZ |
| NBJMQ9 | | 560.0 | 18.3 | 0.89 | 561.0 | 19.7 | 0.96 | ZZ |
| NJDSJB | * | 486.5 | -55.2 | -2.69 | 484.0 | -57.3 | -2.78 | ZZ |
| PCA1WZ | | 538.5 | -3.2 | -0.16 | 522.0 | -19.3 | -0.93 | ZZ |
| PCY6ND | | 559.7 | 17.9 | 0.88 | 563.1 | 21.8 | 1.06 | ZZ |
| PEHTW | | 528.0 | -13.7 | -0.67 | 539.0 | -2.3 | -0.11 | ZZ |
| PM2VD8 | X | 629.5 | 87.8 | 4.28 | 612.0 | 70.7 | 3.43 | ZZ |

Rubber Interlaboratory Testing Program

Analysis 606

Ultimate Elongation (percent)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|--------|----------------|----------------------|--------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| PZ46JP | | 533.5 | -8.2 | -0.40 | 559.0 | 17.7 | 0.86 | ZZ |
| QGWXJH | | 556.2 | 14.4 | 0.70 | 549.5 | 8.2 | 0.40 | ZZ |
| QT4W13 | | 546.5 | 4.8 | 0.23 | 551.0 | 9.7 | 0.47 | ZZ |
| REZ6M2 | | 541.4 | -0.3 | -0.02 | 517.0 | -24.3 | -1.18 | ZZ |
| RGMJAL | | 532.9 | -8.9 | -0.43 | 529.8 | -11.5 | -0.56 | ZZ |
| RX1MB8 | | 541.5 | -0.2 | -0.01 | 565.0 | 23.7 | 1.15 | ZZ |
| RX8SUW | | 526.8 | -15.0 | -0.73 | 545.0 | 3.7 | 0.18 | ZZ |
| S9E1BE | | 504.5 | -37.2 | -1.81 | 510.5 | -30.8 | -1.49 | ZZ |
| SCY261 | | 568.7 | 27.0 | 1.32 | 563.5 | 22.3 | 1.08 | ZZ |
| SPZTEY | | 543.0 | 1.3 | 0.06 | 552.5 | 11.2 | 0.54 | ZZ |
| SW8L6F | X | 2,706.4 | 2,164.7 | 105.59 | 2,724.2 | 2,182.9 | 105.82 | ZZ |
| SZ1RBU | | 527.0 | -14.7 | -0.72 | 523.0 | -18.3 | -0.89 | ZZ |
| TBM3Q3 | | 535.5 | -6.2 | -0.30 | 536.5 | -4.8 | -0.23 | ZZ |
| U6ZVFH | | 551.0 | 9.3 | 0.45 | 546.0 | 4.7 | 0.23 | ZZ |
| UCQXNU | | 561.5 | 19.8 | 0.97 | 542.0 | 0.7 | 0.03 | ZZ |
| UGWPGZ | | 564.0 | 22.3 | 1.09 | 562.0 | 20.7 | 1.00 | ZZ |
| URYWX7 | | 513.5 | -28.2 | -1.38 | 516.5 | -24.8 | -1.20 | ZZ |
| UXCEZ1 | | 577.0 | 35.3 | 1.72 | 562.0 | 20.7 | 1.00 | ZZ |
| V14N8U | | 517.0 | -24.7 | -1.21 | 520.5 | -20.8 | -1.01 | ZZ |
| V1XW2Y | | 542.0 | 0.3 | 0.01 | 536.0 | -5.3 | -0.26 | ZZ |
| V38F15 | X | 866.1 | 324.4 | 15.83 | 800.1 | 258.8 | 12.55 | ZZ |
| VAMRCZ | | 567.5 | 25.8 | 1.26 | 537.0 | -4.3 | -0.21 | ZZ |
| VUQNG | | 541.2 | -0.6 | -0.03 | 542.6 | 1.3 | 0.06 | ZZ |
| VVYUEY | | 518.0 | -23.7 | -1.16 | 549.5 | 8.2 | 0.40 | ZZ |
| WD5J51 | | 526.5 | -15.2 | -0.74 | 539.5 | -1.8 | -0.09 | ZZ |
| WMYD1 | | 535.0 | -6.7 | -0.33 | 532.5 | -8.8 | -0.43 | ZZ |
| WPA58Z | | 529.5 | -12.2 | -0.60 | 549.5 | 8.2 | 0.40 | ZZ |
| WQDZH | | 552.5 | 10.8 | 0.53 | 575.5 | 34.2 | 1.66 | ZZ |
| WRU1YL | | 568.2 | 26.5 | 1.29 | 554.3 | 13.0 | 0.63 | ZZ |
| WU3L3K | | 534.5 | -7.2 | -0.35 | 530.5 | -10.8 | -0.52 | ZZ |
| X3QFKT | | 569.5 | 27.8 | 1.36 | 545.3 | 4.0 | 0.19 | ZZ |
| Y23MVA | | 559.4 | 17.7 | 0.86 | 558.8 | 17.5 | 0.85 | ZZ |
| Y55FW1 | | 564.5 | 22.8 | 1.11 | 563.5 | 22.2 | 1.08 | ZZ |
| Y5EZ9Y | | 551.5 | 9.8 | 0.48 | 545.5 | 4.2 | 0.20 | ZZ |
| Y6JZPB | | 515.0 | -26.7 | -1.30 | 511.0 | -30.3 | -1.47 | ZZ |

Analysis 606

Ultimate Elongation (percent)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| Y78B2X | | 573.0 | 31.3 | 1.53 | 551.5 | 10.2 | 0.50 | ZZ |
| YXPVKP | | 542.1 | 0.4 | 0.02 | 546.4 | 5.1 | 0.25 | ZZ |
| YYX8Z5 | X | 481.5 | -60.2 | -2.94 | 467.5 | -73.8 | -3.58 | ZZ |
| Z9QMAF | | 540.0 | -1.7 | -0.08 | 535.0 | -6.3 | -0.30 | ZZ |
| ZW9W1Z | | 528.0 | -13.7 | -0.67 | 508.5 | -32.8 | -1.59 | ZZ |

| Summary Statistics | |
|---|----------------|
| Grand Means | 541.71 percent |
| Std Dev Btwn Labs | 20.50 percent |
| | 541.29 percent |
| | 20.63 percent |
| Statistics based on 102 of 110 reporting participants | |

Samples C91-C92: Polyisoprene compound, batch #1 & C93-C94: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #606

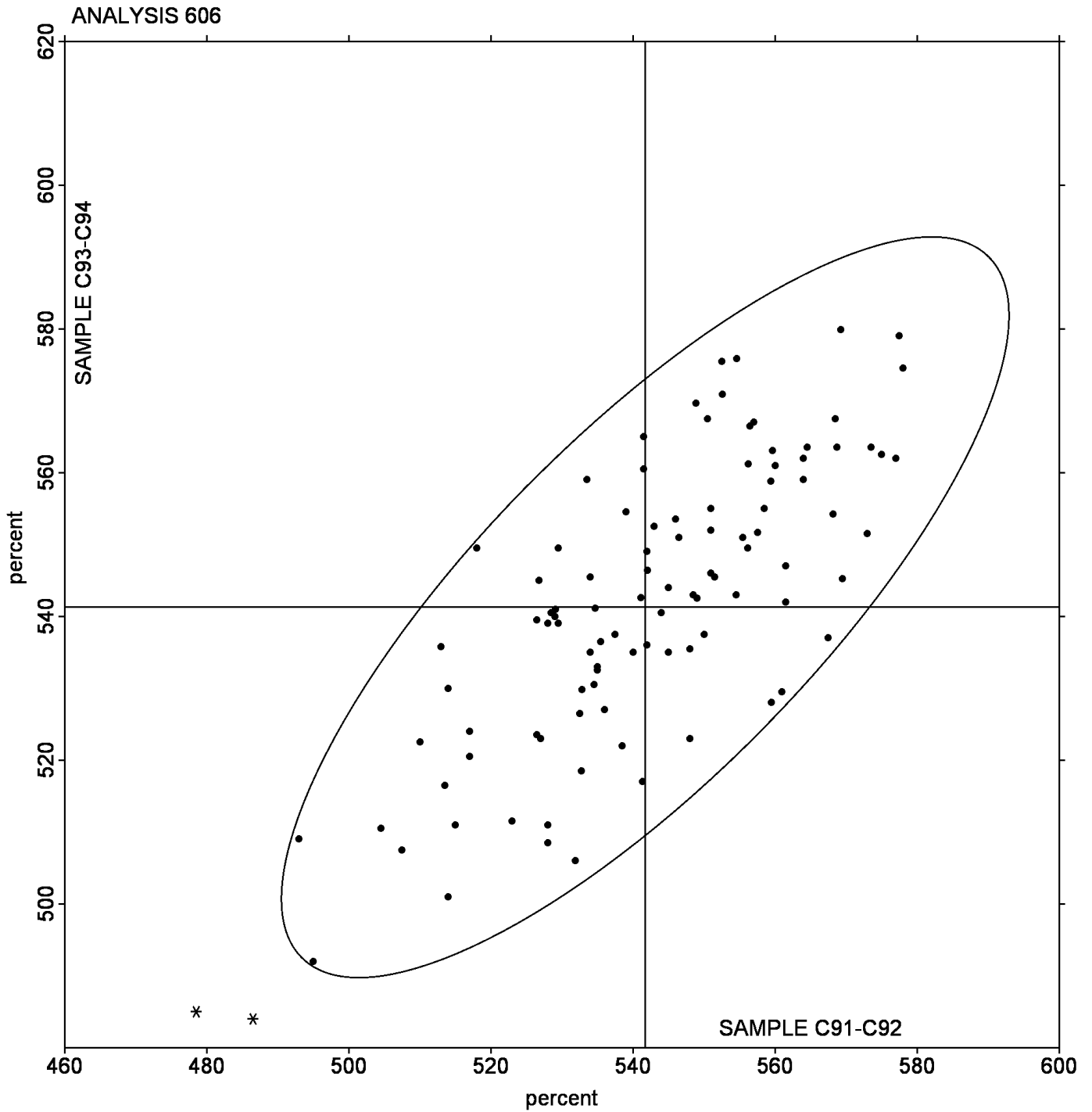
- 1J975C (X) - Data for all Samples are high.
- 52SKVX (X) - Data for all Samples are low. Possible Systematic Error.
- 7E5RRV (X) - Data for all Samples are high.
- 86JAAC (X) - Data for all Samples are high.
- PM2VD8 (X) - Data for all Samples are high.
- SW8L6F (X) - Extreme data for both Sample sets.
- V38F15 (X) - Data for all Samples are high.
- YYX8Z5 (X) - Data for all Samples are low. Also inconsistent in testing within Samples C91-C92.

Analysis 606

Ultimate Elongation (percent)

Grand Mean Sample C91-C92 = 541.71 percent

Grand Mean Sample C93-C94 = 541.29 percent



Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 1EESR9 | | 1,433.7 | 69.9 | 1.00 | 1,451.1 | 82.7 | 1.05 | ZZ |
| 1GFFT6 | | 1,385.3 | 21.5 | 0.31 | 1,369.8 | 1.4 | 0.02 | ZZ |
| 1NFTK9 | | 1,387.9 | 24.1 | 0.34 | 1,360.1 | -8.3 | -0.11 | ZZ |
| 27764S | | 1,277.0 | -86.8 | -1.24 | 1,346.0 | -22.4 | -0.29 | ZZ |
| 2DPNCU | | 1,371.5 | 7.7 | 0.11 | 1,362.0 | -6.4 | -0.08 | ZZ |
| 2EFYV9 | | 1,350.9 | -12.9 | -0.18 | 1,462.4 | 93.9 | 1.20 | ZZ |
| 2XNVQK | | 1,300.0 | -63.8 | -0.91 | 1,239.5 | -128.9 | -1.64 | ZZ |
| 2YVPCY | X | 694.4 | -669.4 | -9.54 | 739.6 | -628.8 | -8.01 | ZZ |
| 33GJDJ | | 1,456.5 | 92.7 | 1.32 | 1,495.0 | 126.6 | 1.61 | ZZ |
| 3BRE9X | | 1,460.4 | 96.6 | 1.38 | 1,415.9 | 47.5 | 0.61 | ZZ |
| 3REVUV | | 1,285.0 | -78.8 | -1.12 | 1,254.0 | -114.4 | -1.46 | ZZ |
| 4CQ75P | | 1,436.0 | 72.2 | 1.03 | 1,385.5 | 17.1 | 0.22 | ZZ |
| 4HEZ5V | X | 1,694.5 | 330.7 | 4.71 | 1,733.5 | 365.1 | 4.65 | ZZ |
| 4KB47J | | 1,401.5 | 37.7 | 0.54 | 1,416.5 | 48.1 | 0.61 | ZZ |
| 543KYJ | | 1,337.5 | -26.3 | -0.37 | 1,266.5 | -101.9 | -1.30 | ZZ |
| 5W3YAAQ | | 1,354.4 | -9.4 | -0.13 | 1,381.8 | 13.3 | 0.17 | ZZ |
| 5ZEJMW | | 1,297.0 | -66.8 | -0.95 | 1,339.5 | -28.9 | -0.37 | ZZ |
| 636SVR | | 1,275.0 | -88.8 | -1.27 | 1,380.0 | 11.6 | 0.15 | ZZ |
| 6MRHJH | | 1,430.8 | 67.0 | 0.96 | 1,380.8 | 12.3 | 0.16 | ZZ |
| 6RRELW | | 1,315.8 | -48.0 | -0.68 | 1,295.7 | -72.7 | -0.93 | ZZ |
| 7MAFTN | | 1,310.6 | -53.2 | -0.76 | 1,363.1 | -5.3 | -0.07 | ZZ |
| 7RXUXN | | 1,362.5 | -1.3 | -0.02 | 1,302.5 | -65.9 | -0.84 | ZZ |
| 86T1TA | | 1,379.2 | 15.4 | 0.22 | 1,344.4 | -24.1 | -0.31 | ZZ |
| 8KCGT2 | | 1,516.5 | 152.7 | 2.18 | 1,488.7 | 120.2 | 1.53 | ZZ |
| 8Z4WVT | X | 993.5 | -370.3 | -5.28 | 979.0 | -389.4 | -4.96 | ZZ |
| 93C9HE | | 1,249.0 | -114.8 | -1.64 | 1,278.0 | -90.4 | -1.15 | ZZ |
| 9CPDWJ | | 1,388.0 | 24.2 | 0.35 | 1,348.5 | -19.9 | -0.25 | ZZ |
| 9J9CDR | | 1,297.5 | -66.3 | -0.94 | 1,327.5 | -40.9 | -0.52 | ZZ |
| 9W9B2N | | 1,477.5 | 113.7 | 1.62 | 1,550.5 | 182.1 | 2.32 | ZZ |
| AXL77S | | 1,479.3 | 115.5 | 1.65 | 1,498.5 | 130.1 | 1.66 | ZZ |
| B2G79U | | 1,353.0 | -10.8 | -0.15 | 1,349.5 | -18.9 | -0.24 | ZZ |
| B5WTRF | | 1,414.9 | 51.1 | 0.73 | 1,463.4 | 95.0 | 1.21 | ZZ |
| BMDNX | | 1,425.4 | 61.6 | 0.88 | 1,347.6 | -20.8 | -0.27 | ZZ |
| BRCF7T | | 1,328.0 | -35.8 | -0.51 | 1,384.0 | 15.6 | 0.20 | ZZ |
| DFW2SX | | 1,349.7 | -14.1 | -0.20 | 1,371.2 | 2.7 | 0.03 | ZZ |

Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| DJARXT | | 1,326.5 | -37.3 | -0.53 | 1,284.0 | -84.4 | -1.08 | ZZ |
| DPGF4E | | 1,349.5 | -14.3 | -0.20 | 1,451.5 | 83.1 | 1.06 | ZZ |
| E2J98W | | 1,384.0 | 20.2 | 0.29 | 1,372.5 | 4.1 | 0.05 | ZZ |
| E3YGNC | | 1,334.0 | -29.8 | -0.42 | 1,293.5 | -74.9 | -0.95 | ZZ |
| EBNSW1 | | 1,338.5 | -25.3 | -0.36 | 1,354.0 | -14.4 | -0.18 | ZZ |
| ECA5PC | | 1,319.1 | -44.7 | -0.64 | 1,323.5 | -45.0 | -0.57 | ZZ |
| EJ98H4 | | 1,382.0 | 18.2 | 0.26 | 1,480.0 | 111.6 | 1.42 | ZZ |
| EMPEPX | | 1,274.2 | -89.6 | -1.28 | 1,238.6 | -129.8 | -1.65 | ZZ |
| EN3DSZ | | 1,416.5 | 52.7 | 0.75 | 1,498.0 | 129.6 | 1.65 | ZZ |
| ENSQ89 | | 1,315.0 | -48.8 | -0.70 | 1,314.5 | -53.9 | -0.69 | ZZ |
| EX6MFC | X | 1,125.0 | -238.8 | -3.40 | 1,105.0 | -263.4 | -3.36 | ZZ |
| EX6Y8U | | 1,517.0 | 153.2 | 2.18 | 1,491.0 | 122.6 | 1.56 | ZZ |
| F5VB4L | | 1,399.6 | 35.8 | 0.51 | 1,392.4 | 23.9 | 0.31 | ZZ |
| GR91MA | | 1,324.5 | -39.3 | -0.56 | 1,399.8 | 31.3 | 0.40 | ZZ |
| GRNQBF | | 1,403.0 | 39.2 | 0.56 | 1,330.0 | -38.4 | -0.49 | ZZ |
| GYAA1F | | 1,366.0 | 2.2 | 0.03 | 1,392.0 | 23.6 | 0.30 | ZZ |
| HKEQFR | | 1,319.7 | -44.1 | -0.63 | 1,326.4 | -42.1 | -0.54 | ZZ |
| HUYAA | | 1,387.0 | 23.2 | 0.33 | 1,412.5 | 44.1 | 0.56 | ZZ |
| J42KUJ | | 1,343.5 | -20.3 | -0.29 | 1,363.0 | -5.4 | -0.07 | ZZ |
| J7SBZH | | 1,403.5 | 39.7 | 0.57 | 1,365.0 | -3.4 | -0.04 | ZZ |
| JE67TP | | 1,516.0 | 152.2 | 2.17 | 1,492.5 | 124.1 | 1.58 | ZZ |
| JHGWVS | | 1,455.4 | 91.6 | 1.31 | 1,489.9 | 121.4 | 1.55 | ZZ |
| JQMLNX | | 1,287.0 | -76.8 | -1.09 | 1,266.5 | -101.9 | -1.30 | ZZ |
| JSDGNC | * | 1,183.0 | -180.8 | -2.58 | 1,220.5 | -147.9 | -1.88 | ZZ |
| K9TJVC | | 1,243.5 | -120.3 | -1.71 | 1,238.0 | -130.4 | -1.66 | ZZ |
| KJVFN2 | | 1,305.0 | -58.8 | -0.84 | 1,332.5 | -35.9 | -0.46 | ZZ |
| KL46SJ | | 1,465.6 | 101.8 | 1.45 | 1,378.6 | 10.2 | 0.13 | ZZ |
| KMA25N | | 1,446.5 | 82.7 | 1.18 | 1,331.5 | -36.9 | -0.47 | ZZ |
| KYD1NN | | 1,400.0 | 36.2 | 0.52 | 1,393.5 | 25.1 | 0.32 | ZZ |
| LFUD85 | | 1,385.3 | 21.5 | 0.31 | 1,410.6 | 42.2 | 0.54 | ZZ |
| M5KWQ | | 1,329.3 | -34.5 | -0.49 | 1,308.3 | -60.2 | -0.77 | ZZ |
| MYFZ47 | | 1,486.6 | 122.9 | 1.75 | 1,450.4 | 82.0 | 1.04 | ZZ |
| N1VB25 | | 1,403.5 | 39.7 | 0.57 | 1,497.5 | 129.1 | 1.64 | ZZ |
| N2APU8 | * | 1,157.0 | -206.8 | -2.95 | 1,175.0 | -193.4 | -2.46 | ZZ |
| N4D1CP | | 1,417.0 | 53.2 | 0.76 | 1,500.5 | 132.1 | 1.68 | ZZ |

Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|--------|----------------|----------------------|--------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| NE73CP | | 1,329.5 | -34.3 | -0.49 | 1,374.0 | 5.6 | 0.07 | ZZ |
| NLL7RG | | 1,325.5 | -38.3 | -0.55 | 1,322.5 | -45.9 | -0.59 | ZZ |
| PMLQ3S | | 1,447.5 | 83.7 | 1.19 | 1,499.0 | 130.5 | 1.66 | ZZ |
| PYPAWR | | 1,339.4 | -24.3 | -0.35 | 1,383.7 | 15.2 | 0.19 | ZZ |
| Q3P5J5 | | 1,266.0 | -97.8 | -1.39 | 1,372.0 | 3.6 | 0.05 | ZZ |
| Q3T3XU | | 1,410.0 | 46.2 | 0.66 | 1,492.5 | 124.1 | 1.58 | ZZ |
| Q4TUQU | X | 1,095.2 | -268.6 | -3.83 | 1,031.2 | -337.2 | -4.30 | ZZ |
| R1T5ND | | 1,296.5 | -67.3 | -0.96 | 1,197.5 | -170.9 | -2.18 | ZZ |
| RWTUSD | | 1,335.5 | -28.3 | -0.40 | 1,429.0 | 60.6 | 0.77 | ZZ |
| RXDK2B | X | 696.9 | -666.9 | -9.50 | 715.0 | -653.4 | -8.32 | ZZ |
| S5BD54 | | 1,341.5 | -22.3 | -0.32 | 1,451.0 | 82.6 | 1.05 | ZZ |
| SAQZ89 | | 1,324.5 | -39.3 | -0.56 | 1,311.5 | -56.9 | -0.73 | ZZ |
| SUS3FK | | 1,359.0 | -4.8 | -0.07 | 1,355.5 | -12.9 | -0.16 | ZZ |
| SZK6K9 | | 1,412.0 | 48.2 | 0.69 | 1,389.5 | 21.1 | 0.27 | ZZ |
| T4E93F | | 1,314.0 | -49.8 | -0.71 | 1,359.0 | -9.4 | -0.12 | ZZ |
| THP8MT | | 1,399.0 | 35.2 | 0.50 | 1,421.0 | 52.6 | 0.67 | ZZ |
| TPFEH9 | | 1,311.5 | -52.3 | -0.75 | 1,352.5 | -15.9 | -0.20 | ZZ |
| U1S1GL | | 1,391.7 | 27.9 | 0.40 | 1,380.0 | 11.5 | 0.15 | ZZ |
| U6FB75 | | 1,351.8 | -12.0 | -0.17 | 1,308.3 | -60.2 | -0.77 | ZZ |
| UFNC2J | X | 417.7 | -946.1 | -13.48 | 414.8 | -953.6 | -12.15 | ZZ |
| UMYQE | | 1,378.5 | 14.7 | 0.21 | 1,359.5 | -8.9 | -0.11 | ZZ |
| VBD1VF | | 1,472.0 | 108.2 | 1.54 | 1,375.5 | 7.1 | 0.09 | ZZ |
| VSFA8F | * | 1,345.5 | -18.3 | -0.26 | 1,487.0 | 118.6 | 1.51 | ZZ |
| W1YQCP | | 1,334.0 | -29.8 | -0.42 | 1,356.0 | -12.4 | -0.16 | ZZ |
| W7AVP3 | | 1,363.8 | 0.0 | 0.00 | 1,286.2 | -82.2 | -1.05 | ZZ |
| WA6891 | | 1,324.9 | -38.9 | -0.55 | 1,353.2 | -15.2 | -0.19 | ZZ |
| WDG1PL | | 1,474.5 | 110.7 | 1.58 | 1,449.8 | 81.3 | 1.04 | ZZ |
| X21JHZ | X | 1,745.0 | 381.2 | 5.43 | 1,639.0 | 270.6 | 3.45 | ZZ |
| XMD16C | | 1,369.2 | 5.4 | 0.08 | 1,307.5 | -60.9 | -0.78 | ZZ |
| XMJ9FQ | | 1,334.4 | -29.4 | -0.42 | 1,237.2 | -131.3 | -1.67 | ZZ |
| XQYU2S | | 1,444.5 | 80.7 | 1.15 | 1,386.0 | 17.6 | 0.22 | ZZ |
| YCA31N | | 1,246.0 | -117.8 | -1.68 | 1,281.5 | -86.9 | -1.11 | ZZ |
| YCV49R | | 1,412.0 | 48.2 | 0.69 | 1,363.4 | -5.1 | -0.06 | ZZ |
| YRSZ8X | | 1,270.5 | -93.3 | -1.33 | 1,300.5 | -67.9 | -0.87 | ZZ |
| ZE2B5B | | 1,389.5 | 25.7 | 0.37 | 1,338.7 | -29.7 | -0.38 | ZZ |

Analysis 607

Stress at 300% Elongation (psi)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| ZVZV8Z | | 1,266.0 | -97.8 | -1.39 | 1,239.0 | -129.4 | -1.65 | ZZ |

| Summary Statistics | | | |
|--|--------------|--|--------------|
| Grand Means | 1,363.78 psi | | 1,368.43 psi |
| Std Dev Btwn Labs | 70.17 psi | | 78.49 psi |
| Statistics based on 98 of 106 reporting participants | | | |

| Summary Statistics in SI Units | | | |
|--|------------|--|----------|
| Grand Means | 9.4029 MPa | | 9.43 MPa |
| Std Dev Btwn Labs | 0.4838 MPa | | 0.54 MPa |
| Statistics based on 98 of 106 reporting participants | | | |

Samples C91-C92: Polyisoprene compound, batch #1 & C93-C94: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #607

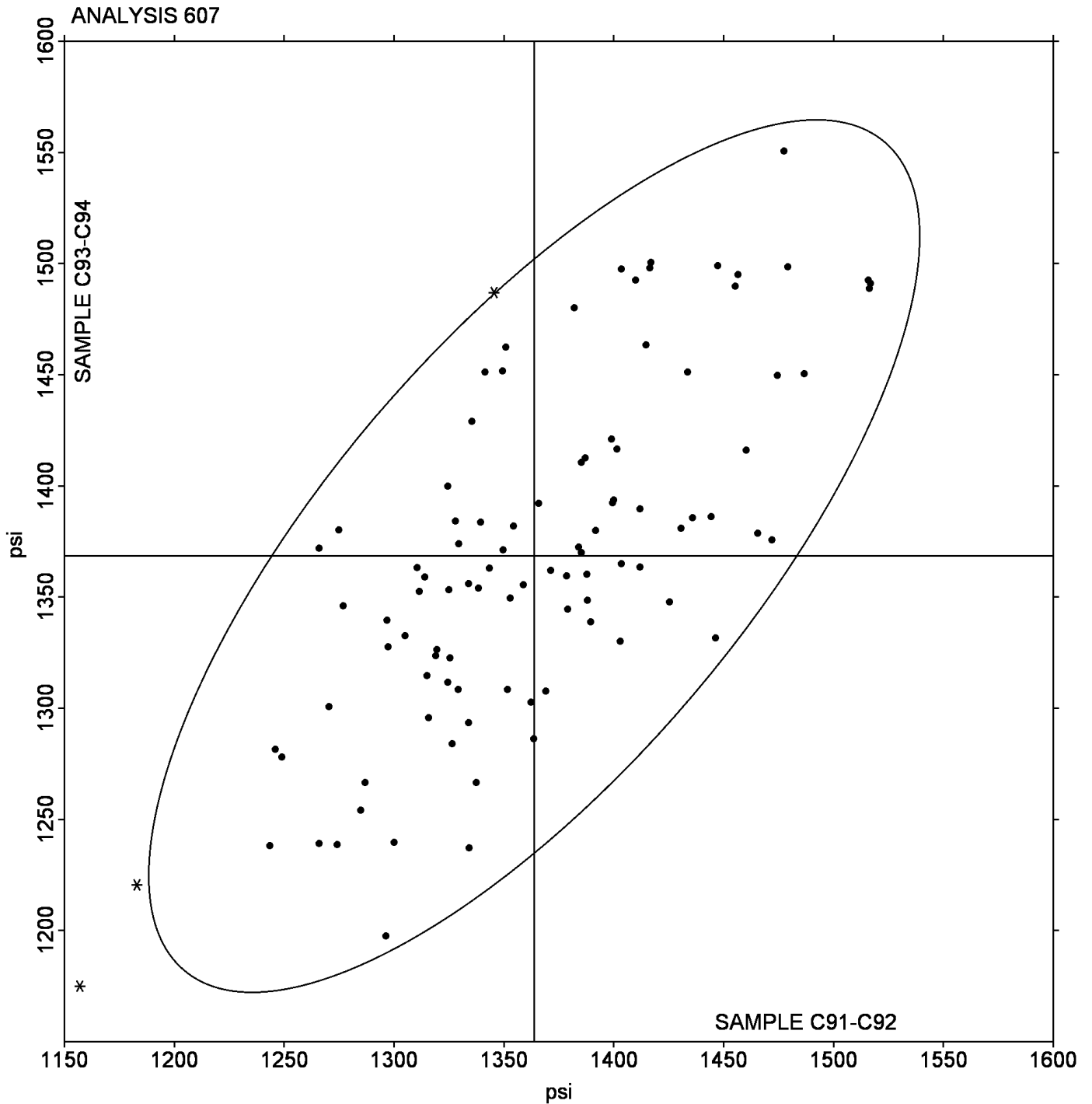
- 2YVPCY (X) - Data for all Samples are low.
- 4HEZ5V (X) - Data for all Samples are high.
- 8Z4WVT (X) - Data for all Samples are low.
- EX6MFC (X) - Data for all Samples are low. Possible Systematic Error.
- Q4TUQU (X) - Data for all Samples are low. Possible Systematic Error.
- RXDK2B (X) - Data for all Samples are low.
- UFNC2J (X) - Data for all Samples are low.
- X21JHZ (X) - Data for all Samples are high.

Analysis 607

Stress at 300% Elongation (psi)

Grand Mean Sample C91-C92 = 1,363.78 psi

Grand Mean Sample C93-C94 = 1,368.43 psi



Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 12D1HA | X | 239.6 | -72.6 | -4.21 | 302.0 | -7.5 | -0.42 | ZZ |
| 165BE3 | | 308.0 | -4.1 | -0.24 | 309.5 | 0.0 | 0.00 | ZZ |
| 24H2T8 | | 346.4 | 34.3 | 1.99 | 352.8 | 43.3 | 2.39 | ZZ |
| 25NLM9 | | 316.5 | 4.4 | 0.25 | 308.0 | -1.5 | -0.08 | ZZ |
| 27PALR | | 312.3 | 0.2 | 0.01 | 302.2 | -7.3 | -0.40 | ZZ |
| 286CJR | | 314.1 | 2.0 | 0.11 | 309.1 | -0.4 | -0.02 | ZZ |
| 2BJRXE | | 354.6 | 42.5 | 2.46 | 336.5 | 27.0 | 1.49 | ZZ |
| 2VPU8G | | 317.1 | 4.9 | 0.29 | 299.1 | -10.4 | -0.58 | ZZ |
| 2ZHRX8 | | 304.2 | -8.0 | -0.46 | 313.8 | 4.3 | 0.24 | ZZ |
| 3CSMW4 | | 327.5 | 15.4 | 0.89 | 309.0 | -0.5 | -0.03 | ZZ |
| 3KX8BC | | 323.0 | 10.9 | 0.63 | 315.5 | 6.0 | 0.33 | ZZ |
| 3NEKYV | | 306.0 | -6.1 | -0.35 | 292.5 | -17.0 | -0.94 | ZZ |
| 3WMCB | | 312.5 | 0.4 | 0.02 | 289.9 | -19.6 | -1.08 | ZZ |
| 4EEP9V | X | 579.5 | 267.4 | 15.50 | 633.5 | 324.0 | 17.89 | ZZ |
| 4UFNQK | | 285.5 | -26.6 | -1.54 | 292.5 | -17.0 | -0.94 | ZZ |
| 5A25YU | | 325.9 | 13.8 | 0.80 | 308.1 | -1.4 | -0.08 | ZZ |
| 5E1ZZM | | 313.0 | 0.9 | 0.05 | 296.5 | -13.0 | -0.72 | ZZ |
| 5LJPHQ | | 293.0 | -19.1 | -1.11 | 305.5 | -4.0 | -0.22 | ZZ |
| 5ZQ95U | | 293.5 | -18.6 | -1.08 | 297.5 | -12.0 | -0.66 | ZZ |
| 6CYTH1 | | 340.5 | 28.4 | 1.65 | 336.5 | 27.0 | 1.49 | ZZ |
| 6SDRQM | | 308.0 | -4.1 | -0.24 | 294.0 | -15.5 | -0.85 | ZZ |
| 71ZPYM | | 293.5 | -18.6 | -1.08 | 314.0 | 4.5 | 0.25 | ZZ |
| 7DSA63 | | 306.8 | -5.3 | -0.31 | 297.4 | -12.1 | -0.67 | ZZ |
| 7MJPA8 | | 302.5 | -9.6 | -0.56 | 294.5 | -15.0 | -0.83 | ZZ |
| 85S7LC | | 338.5 | 26.4 | 1.53 | 315.0 | 5.5 | 0.30 | ZZ |
| 88QS88 | | 326.0 | 13.9 | 0.80 | 322.3 | 12.8 | 0.71 | ZZ |
| 8B6NRM | | 274.0 | -38.1 | -2.21 | 273.0 | -36.5 | -2.01 | ZZ |
| 8YP5GB | X | 256.0 | -56.1 | -3.25 | 248.9 | -60.6 | -3.35 | ZZ |
| 94DJVH | | 306.0 | -6.1 | -0.35 | 303.1 | -6.4 | -0.35 | ZZ |
| 95SFG3 | | 305.9 | -6.2 | -0.36 | 327.0 | 17.5 | 0.97 | ZZ |
| 9KRVLQ | | 297.3 | -14.8 | -0.86 | 287.9 | -21.6 | -1.19 | ZZ |
| 9V2WVG | | 297.5 | -14.6 | -0.85 | 280.5 | -29.0 | -1.60 | ZZ |
| 9ZXN1T | X | 251.0 | -61.1 | -3.54 | 266.0 | -43.5 | -2.40 | ZZ |
| A3ZGHF | | 325.2 | 13.0 | 0.76 | 330.7 | 21.2 | 1.17 | ZZ |
| B2UZRQ | | 306.0 | -6.1 | -0.35 | 298.0 | -11.5 | -0.63 | ZZ |

Analysis 608

Stress at 100% Elongation (psi)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| BDS8L9 | | 324.2 | 12.0 | 0.70 | 312.6 | 3.1 | 0.17 | ZZ |
| BFZN5J | | 278.0 | -34.1 | -1.98 | 273.0 | -36.5 | -2.01 | ZZ |
| CN87FN | | 315.0 | 2.9 | 0.17 | 289.0 | -20.5 | -1.13 | ZZ |
| CNNYG1 | | 305.0 | -7.1 | -0.41 | 328.5 | 19.0 | 1.05 | ZZ |
| CSBMMS | | 303.5 | -8.6 | -0.50 | 305.5 | -4.0 | -0.22 | ZZ |
| CVR84D | | 309.7 | -2.5 | -0.14 | 324.2 | 14.7 | 0.81 | ZZ |
| DHBES6 | | 311.5 | -0.6 | -0.04 | 320.5 | 11.0 | 0.61 | ZZ |
| DLBMZX | * | 291.5 | -20.6 | -1.19 | 332.0 | 22.5 | 1.24 | ZZ |
| DSWN98 | | 315.0 | 2.9 | 0.17 | 296.0 | -13.5 | -0.74 | ZZ |
| E3CQB1 | X | 216.0 | -96.1 | -5.57 | 213.5 | -96.0 | -5.30 | ZZ |
| EN9DG8 | | 329.5 | 17.4 | 1.01 | 304.5 | -5.0 | -0.28 | ZZ |
| F6F6J9 | | 298.8 | -13.3 | -0.77 | 290.1 | -19.4 | -1.07 | ZZ |
| FN88RL | | 296.5 | -15.6 | -0.91 | 286.0 | -23.5 | -1.30 | ZZ |
| FVYMZC | | 348.1 | 36.0 | 2.09 | 333.6 | 24.1 | 1.33 | ZZ |
| FXH97L | | 323.0 | 10.9 | 0.63 | 308.0 | -1.5 | -0.08 | ZZ |
| G99516 | | 317.5 | 5.4 | 0.31 | 322.0 | 12.5 | 0.69 | ZZ |
| GF66SJ | X | 245.1 | -67.0 | -3.88 | 251.6 | -57.8 | -3.19 | ZZ |
| GGY6QV | | 310.5 | -1.6 | -0.09 | 310.5 | 1.0 | 0.06 | ZZ |
| GKVM7Q | | 302.7 | -9.4 | -0.55 | 300.1 | -9.4 | -0.52 | ZZ |
| HCN8A8 | | 303.5 | -8.6 | -0.50 | 319.0 | 9.5 | 0.53 | ZZ |
| HDLU7R | | 319.8 | 7.7 | 0.45 | 319.1 | 9.6 | 0.53 | ZZ |
| HS53R5 | | 310.0 | -2.1 | -0.12 | 286.0 | -23.5 | -1.30 | ZZ |
| JB6EYC | | 335.5 | 23.4 | 1.36 | 313.5 | 4.0 | 0.22 | ZZ |
| JGB8T8 | | 323.0 | 10.9 | 0.63 | 340.3 | 30.8 | 1.70 | ZZ |
| JNFMK | | 311.8 | -0.3 | -0.02 | 295.9 | -13.6 | -0.75 | ZZ |
| KACYL8 | | 304.9 | -7.3 | -0.42 | 307.1 | -2.4 | -0.13 | ZZ |
| KC1XSX | | 317.1 | 4.9 | 0.29 | 334.1 | 24.6 | 1.36 | ZZ |
| KCHHEA | | 309.0 | -3.1 | -0.18 | 332.0 | 22.5 | 1.24 | ZZ |
| L4Q8ZD | | 351.1 | 39.0 | 2.26 | 342.9 | 33.4 | 1.85 | ZZ |
| LMN9NA | | 321.5 | 9.4 | 0.54 | 328.0 | 18.5 | 1.02 | ZZ |
| LPKGD7 | | 297.0 | -15.1 | -0.88 | 319.0 | 9.5 | 0.53 | ZZ |
| LUBRLK | | 329.5 | 17.4 | 1.01 | 322.7 | 13.2 | 0.73 | ZZ |
| LXXHP9 | | 303.5 | -8.6 | -0.50 | 301.5 | -8.0 | -0.44 | ZZ |
| M19R66 | | 324.0 | 11.9 | 0.69 | 315.0 | 5.5 | 0.30 | ZZ |
| MEWG5 | X | 375.0 | 62.9 | 3.65 | 404.5 | 95.0 | 5.25 | ZZ |

Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| MKZYLN | | 319.5 | 7.4 | 0.43 | 322.0 | 12.5 | 0.69 | ZZ |
| MR53R9 | | 301.7 | -10.4 | -0.60 | 307.5 | -2.0 | -0.11 | ZZ |
| MRMKJA | X | 414.5 | 102.4 | 5.93 | 385.5 | 76.0 | 4.20 | ZZ |
| MXQ32D | | 291.5 | -20.6 | -1.19 | 305.0 | -4.5 | -0.25 | ZZ |
| MYDP9J | | 313.5 | 1.4 | 0.08 | 317.0 | 7.5 | 0.42 | ZZ |
| MZGKFF | | 326.3 | 14.2 | 0.82 | 326.3 | 16.9 | 0.93 | ZZ |
| N5XW4E | | 298.0 | -14.1 | -0.82 | 298.0 | -11.5 | -0.63 | ZZ |
| NAPDQ1 | | 297.7 | -14.4 | -0.84 | 280.7 | -28.8 | -1.59 | ZZ |
| NB8SGP | | 298.5 | -13.6 | -0.79 | 296.5 | -13.0 | -0.72 | ZZ |
| NNFQ7A | | 291.0 | -21.1 | -1.22 | 292.5 | -17.0 | -0.94 | ZZ |
| NSZM97 | | 280.0 | -32.1 | -1.86 | 273.0 | -36.5 | -2.01 | ZZ |
| P5FV3X | | 319.0 | 6.9 | 0.40 | 316.5 | 7.0 | 0.39 | ZZ |
| P75RW5 | | 302.5 | -9.6 | -0.56 | 306.0 | -3.5 | -0.19 | ZZ |
| PMX4VL | | 310.0 | -2.1 | -0.12 | 331.0 | 21.5 | 1.19 | ZZ |
| PPBEHJ | | 301.0 | -11.1 | -0.64 | 313.5 | 4.0 | 0.22 | ZZ |
| PQUUV6 | | 293.5 | -18.6 | -1.08 | 315.0 | 5.5 | 0.30 | ZZ |
| QWVYF | * | 355.5 | 43.4 | 2.51 | 345.5 | 36.0 | 1.99 | ZZ |
| R8W2VH | * | 355.2 | 43.1 | 2.50 | 335.7 | 26.2 | 1.45 | ZZ |
| RF2N6K | | 290.8 | -21.3 | -1.24 | 279.2 | -30.3 | -1.67 | ZZ |
| SDLWBF | | 312.6 | 0.4 | 0.03 | 294.4 | -15.1 | -0.83 | ZZ |
| SRXZ2K | X | 170.4 | -141.7 | -8.21 | 166.1 | -143.4 | -7.92 | ZZ |
| T43GLK | | 298.8 | -13.3 | -0.77 | 314.7 | 5.3 | 0.29 | ZZ |
| TNEM6U | | 315.5 | 3.4 | 0.20 | 310.5 | 1.0 | 0.06 | ZZ |
| UXEGYX | | 310.0 | -2.1 | -0.12 | 334.5 | 25.0 | 1.38 | ZZ |
| UY2RGS | | 274.5 | -37.6 | -2.18 | 274.5 | -35.0 | -1.93 | ZZ |
| V1Q2W5 | X | 231.4 | -80.8 | -4.68 | 241.7 | -67.8 | -3.75 | ZZ |
| V92QX5 | | 314.3 | 2.2 | 0.13 | 306.5 | -3.0 | -0.16 | ZZ |
| VE8CHU | | 335.8 | 23.6 | 1.37 | 319.8 | 10.3 | 0.57 | ZZ |
| VJEYXR | | 305.0 | -7.1 | -0.41 | 300.0 | -9.5 | -0.52 | ZZ |
| VMVKE | | 330.0 | 17.9 | 1.04 | 296.5 | -13.0 | -0.72 | ZZ |
| WF546D | | 303.0 | -9.1 | -0.53 | 300.5 | -9.0 | -0.50 | ZZ |
| WPYHGS | | 324.9 | 12.8 | 0.74 | 312.6 | 3.1 | 0.17 | ZZ |
| WTKRV5 | | 290.1 | -22.0 | -1.28 | 282.8 | -26.7 | -1.47 | ZZ |
| WTSA59 | | 325.5 | 13.4 | 0.78 | 304.5 | -5.0 | -0.28 | ZZ |
| XAGZLV | | 320.5 | 8.4 | 0.49 | 308.5 | -1.0 | -0.05 | ZZ |

Analysis 608

Stress at 100% Elongation (psi)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| Y61JKP | | 300.0 | -12.1 | -0.70 | 294.5 | -15.0 | -0.83 | ZZ |
| YBMYU | | 334.5 | 22.4 | 1.30 | 348.0 | 38.5 | 2.13 | ZZ |
| ZYMSW | | 325.5 | 13.4 | 0.78 | 342.0 | 32.5 | 1.80 | ZZ |

Summary Statistics

Grand Means

312.12 psi

309.48 psi

Std Dev Btwn Labs

17.25 psi

18.11 psi

Statistics based on 98 of 108 reporting participants

Summary Statistics in SI Units

Grand Means

2.1519 MPa

2.13 MPa

Std Dev Btwn Labs

0.1189 MPa

0.12 MPa

Statistics based on 98 of 108 reporting participants

Samples C91-C92: Polyisoprene compound, batch #1 & C93-C94: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #608

12D1HA (X) - Data for Sample set C91-C92 are low. Also inconsistent in testing within Sample set C91-C92.

4EEP9V (X) - Data for all Samples are high.

8YP5GB (X) - Data for all Samples are low. Possible Systematic Error.

9ZXN1T (X) - Data for Sample set C91-C92 are low. Also inconsistent in testing within both samples.

E3CQB1 (X) - Data for all Samples are low.

GF66SJ (X) - Data for all Samples are low. Possible Systematic Error.

MEWG5V (X) - Data for all Samples are high.

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

SRXZ2K (X) - Data for all Samples are low.

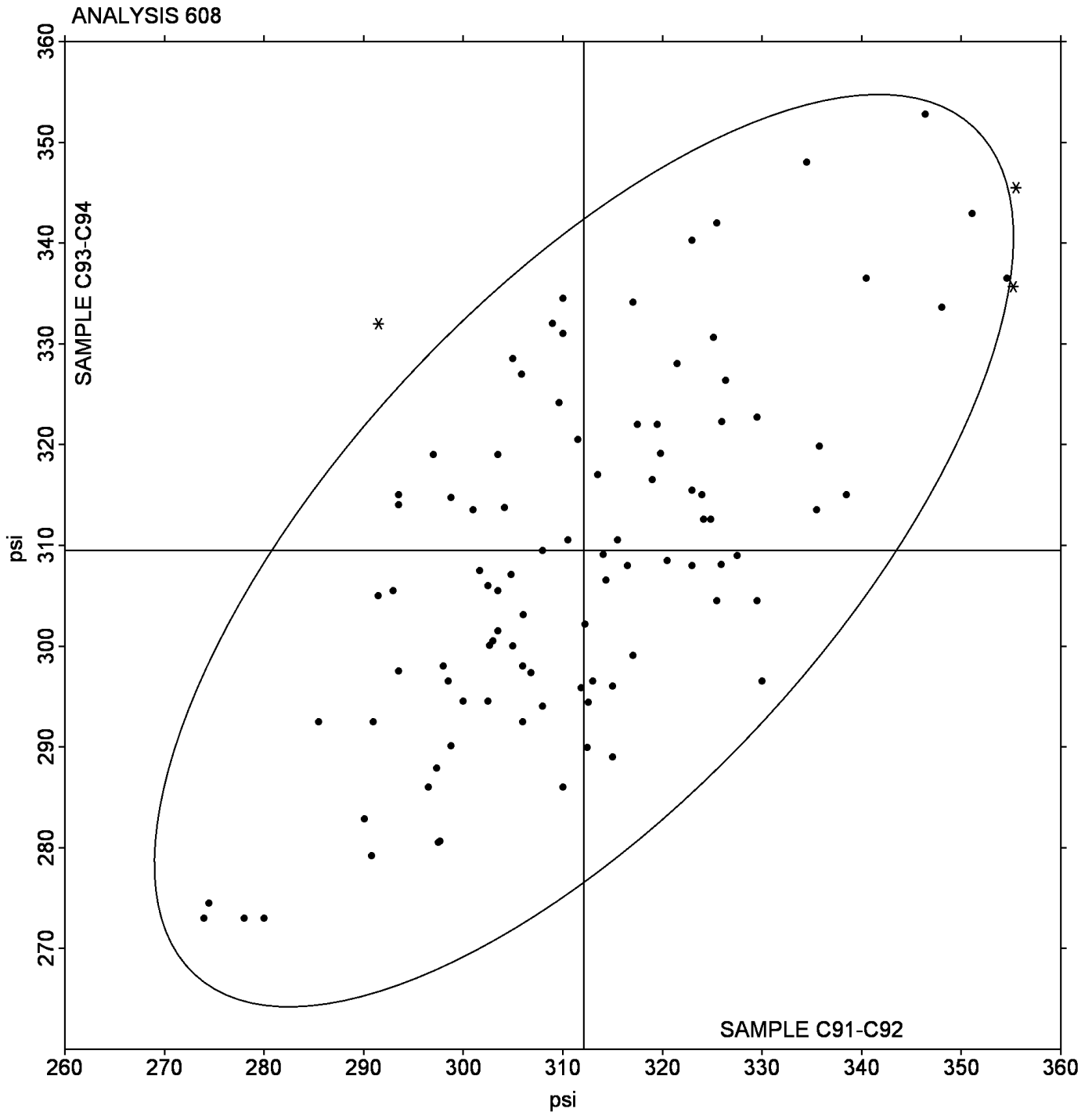
V1Q2W5 (X) - Data for all Samples are low.

Analysis 608

Stress at 100% Elongation (psi)

Grand Mean Sample C91-C92 = 312.12 psi

Grand Mean Sample C93-C94 = 309.48 psi



Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 11XCUJ | | 56.00 | -2.19 | -1.09 | 56.00 | -2.33 | -1.12 | ZZ |
| 19AX17 | | 60.00 | 1.81 | 0.90 | 60.50 | 2.17 | 1.04 | ZZ |
| 1GVEVQ | | 60.00 | 1.81 | 0.90 | 60.40 | 2.07 | 0.99 | ZZ |
| 1JK9D5 | | 57.50 | -0.69 | -0.34 | 58.50 | 0.17 | 0.08 | ZZ |
| 1KSG L4 | | 57.00 | -1.19 | -0.59 | 57.00 | -1.33 | -0.64 | ZZ |
| 1N733Q | | 59.00 | 0.81 | 0.40 | 59.50 | 1.17 | 0.56 | ZZ |
| 1NQYKR | | 57.15 | -1.04 | -0.52 | 56.95 | -1.38 | -0.66 | ZZ |
| 21JSUS | | 59.50 | 1.31 | 0.65 | 60.50 | 2.17 | 1.04 | ZZ |
| 2B1CDP | | 58.20 | 0.01 | 0.00 | 56.85 | -1.48 | -0.71 | ZZ |
| 2CUQT8 | | 59.00 | 0.81 | 0.40 | 58.00 | -0.33 | -0.16 | ZZ |
| 31A2C7 | | 58.50 | 0.31 | 0.15 | 60.00 | 1.67 | 0.80 | ZZ |
| 4122GR | | 59.25 | 1.06 | 0.53 | 60.25 | 1.92 | 0.92 | ZZ |
| 4R127Y | | 58.00 | -0.19 | -0.09 | 57.50 | -0.83 | -0.40 | ZZ |
| 4UKK7Q | | 58.00 | -0.19 | -0.09 | 58.00 | -0.33 | -0.16 | ZZ |
| 5SLETV | | 59.00 | 0.81 | 0.40 | 59.50 | 1.17 | 0.56 | ZZ |
| 6CCN1G | | 59.60 | 1.41 | 0.70 | 60.20 | 1.87 | 0.89 | ZZ |
| 6D1T37 | | 59.50 | 1.31 | 0.65 | 59.50 | 1.17 | 0.56 | ZZ |
| 6H4Y5D | | 62.00 | 3.81 | 1.89 | 61.50 | 3.17 | 1.51 | ZZ |
| 6LJKMZ | | 60.00 | 1.81 | 0.90 | 59.00 | 0.67 | 0.32 | ZZ |
| 6N6MFV | | 57.50 | -0.69 | -0.34 | 58.50 | 0.17 | 0.08 | ZZ |
| 7714AM | | 56.60 | -1.59 | -0.79 | 57.10 | -1.23 | -0.59 | ZZ |
| 7PJ1RF | | 58.65 | 0.46 | 0.23 | 58.85 | 0.52 | 0.25 | ZZ |
| 81SVQC | | 55.50 | -2.69 | -1.33 | 56.70 | -1.63 | -0.78 | ZZ |
| 89T3SK | | 58.50 | 0.31 | 0.15 | 58.50 | 0.17 | 0.08 | ZZ |
| 8P4JJ2 | | 59.40 | 1.21 | 0.60 | 59.20 | 0.87 | 0.41 | ZZ |
| 8PD3VB | | 56.50 | -1.69 | -0.84 | 56.50 | -1.83 | -0.88 | ZZ |
| 8WPBXM | | 61.45 | 3.26 | 1.62 | 61.50 | 3.17 | 1.51 | ZZ |
| 8YBJ8N | | 57.50 | -0.69 | -0.34 | 57.50 | -0.83 | -0.40 | ZZ |
| 9FL1EL | * | 53.50 | -4.69 | -2.33 | 55.00 | -3.33 | -1.60 | ZZ |
| 9Q42H3 | | 56.25 | -1.94 | -0.96 | 57.00 | -1.33 | -0.64 | ZZ |
| A4FD9F | X | 56.50 | -1.69 | -0.84 | 59.65 | 1.32 | 0.63 | ZZ |
| AFYY2G | | 59.00 | 0.81 | 0.40 | 60.00 | 1.67 | 0.80 | ZZ |
| AM216H | | 61.00 | 2.81 | 1.39 | 60.00 | 1.67 | 0.80 | ZZ |
| AQXPFL | | 55.00 | -3.19 | -1.58 | 55.00 | -3.33 | -1.60 | ZZ |
| BBV65J | | 57.55 | -0.64 | -0.32 | 57.05 | -1.28 | -0.61 | ZZ |

Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| BHGVVV | | 56.50 | -1.69 | -0.84 | 56.50 | -1.83 | -0.88 | ZZ |
| C5TQCV | | 62.00 | 3.81 | 1.89 | 62.00 | 3.67 | 1.75 | ZZ |
| CQN9Y8 | | 60.00 | 1.81 | 0.90 | 59.50 | 1.17 | 0.56 | ZZ |
| CRDHK5 | | 57.00 | -1.19 | -0.59 | 58.00 | -0.33 | -0.16 | ZZ |
| DEJ1TQ | | 60.50 | 2.31 | 1.14 | 60.50 | 2.17 | 1.04 | ZZ |
| DKKZPZ | | 56.50 | -1.69 | -0.84 | 57.00 | -1.33 | -0.64 | ZZ |
| EBSQ93 | | 57.50 | -0.69 | -0.34 | 58.00 | -0.33 | -0.16 | ZZ |
| EKNSAE | | 60.00 | 1.81 | 0.90 | 60.00 | 1.67 | 0.80 | ZZ |
| EUQ4EV | | 57.35 | -0.84 | -0.42 | 55.90 | -2.43 | -1.16 | ZZ |
| EXF6U9 | | 57.50 | -0.69 | -0.34 | 58.00 | -0.33 | -0.16 | ZZ |
| FBMZD5 | | 61.00 | 2.81 | 1.39 | 61.50 | 3.17 | 1.51 | ZZ |
| FEA4C3 | * | 54.00 | -4.19 | -2.08 | 53.00 | -5.33 | -2.55 | ZZ |
| FK13QS | | 57.50 | -0.69 | -0.34 | 57.00 | -1.33 | -0.64 | ZZ |
| FWZDAR | | 57.80 | -0.39 | -0.19 | 58.15 | -0.18 | -0.09 | ZZ |
| GC3CST | | 58.00 | -0.19 | -0.09 | 59.50 | 1.17 | 0.56 | ZZ |
| GHF1Q5 | | 61.00 | 2.81 | 1.39 | 61.00 | 2.67 | 1.28 | ZZ |
| H1F3KF | | 59.00 | 0.81 | 0.40 | 59.50 | 1.17 | 0.56 | ZZ |
| HFTM7E | | 59.00 | 0.81 | 0.40 | 60.00 | 1.67 | 0.80 | ZZ |
| HHVFWJ | | 60.00 | 1.81 | 0.90 | 60.00 | 1.67 | 0.80 | ZZ |
| HLNFGL | | 62.30 | 4.11 | 2.04 | 61.45 | 3.12 | 1.49 | ZZ |
| HLUV4G | * | 58.50 | 0.31 | 0.15 | 60.50 | 2.17 | 1.04 | ZZ |
| HM37JX | | 57.50 | -0.69 | -0.34 | 57.35 | -0.98 | -0.47 | ZZ |
| JGBSJ9 | | 56.70 | -1.49 | -0.74 | 56.50 | -1.83 | -0.88 | ZZ |
| JLD2ZR | | 58.50 | 0.31 | 0.15 | 59.00 | 0.67 | 0.32 | ZZ |
| JN9ZSB | | 57.80 | -0.39 | -0.19 | 57.35 | -0.98 | -0.47 | ZZ |
| JW8B9T | | 58.10 | -0.09 | -0.04 | 57.40 | -0.93 | -0.45 | ZZ |
| K24YY5 | | 56.50 | -1.69 | -0.84 | 56.50 | -1.83 | -0.88 | ZZ |
| KDSK3U | | 57.50 | -0.69 | -0.34 | 57.00 | -1.33 | -0.64 | ZZ |
| KX6WX6 | | 58.75 | 0.56 | 0.28 | 58.60 | 0.27 | 0.13 | ZZ |
| L22WZ8 | | 60.20 | 2.01 | 1.00 | 60.00 | 1.67 | 0.80 | ZZ |
| L8E286 | | 59.00 | 0.81 | 0.40 | 60.00 | 1.67 | 0.80 | ZZ |
| LTR752 | | 58.50 | 0.31 | 0.15 | 59.00 | 0.67 | 0.32 | ZZ |
| M2LFLB | | 58.10 | -0.09 | -0.04 | 58.75 | 0.42 | 0.20 | ZZ |
| M987FC | * | 59.95 | 1.76 | 0.87 | 61.75 | 3.42 | 1.63 | ZZ |
| MALNPJ | | 57.50 | -0.69 | -0.34 | 57.50 | -0.83 | -0.40 | ZZ |

Rubber Interlaboratory Testing Program

Analysis 620

Hardness (Shore A/Type A)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| MB5AGZ | | 57.80 | -0.39 | -0.19 | 58.35 | 0.02 | 0.01 | ZZ |
| MHTEQ8 | | 58.00 | -0.19 | -0.09 | 57.50 | -0.83 | -0.40 | ZZ |
| MPQFH | | 58.15 | -0.04 | -0.02 | 57.75 | -0.58 | -0.28 | ZZ |
| MYZF5Q | * | 56.00 | -2.19 | -1.09 | 58.00 | -0.33 | -0.16 | ZZ |
| N6CXJN | | 55.50 | -2.69 | -1.33 | 55.50 | -2.83 | -1.36 | ZZ |
| N7L83K | | 59.50 | 1.31 | 0.65 | 60.50 | 2.17 | 1.04 | ZZ |
| NN9JQM | | 58.00 | -0.19 | -0.09 | 57.00 | -1.33 | -0.64 | ZZ |
| P5HKMN | | 55.00 | -3.19 | -1.58 | 54.50 | -3.83 | -1.83 | ZZ |
| PDSGH1 | | 58.95 | 0.76 | 0.38 | 58.65 | 0.32 | 0.15 | ZZ |
| PPT59X | | 55.50 | -2.69 | -1.33 | 56.00 | -2.33 | -1.12 | ZZ |
| PQU53P | | 59.20 | 1.01 | 0.50 | 58.55 | 0.22 | 0.10 | ZZ |
| PX47TA | X | 60.00 | 1.81 | 0.90 | 57.50 | -0.83 | -0.40 | ZZ |
| PZAPUU | | 60.75 | 2.56 | 1.27 | 61.00 | 2.67 | 1.28 | ZZ |
| QUVZQ4 | | 58.60 | 0.41 | 0.20 | 59.90 | 1.57 | 0.75 | ZZ |
| RC3CAK | | 60.15 | 1.96 | 0.97 | 59.00 | 0.67 | 0.32 | ZZ |
| RLAU15 | | 55.05 | -3.14 | -1.56 | 54.60 | -3.73 | -1.79 | ZZ |
| RTCEAY | | 55.90 | -2.29 | -1.14 | 56.20 | -2.13 | -1.02 | ZZ |
| S2WSNH | | 58.65 | 0.46 | 0.23 | 59.35 | 1.02 | 0.49 | ZZ |
| S3CEEQ | | 60.00 | 1.81 | 0.90 | 60.00 | 1.67 | 0.80 | ZZ |
| SU1WLD | | 59.00 | 0.81 | 0.40 | 58.50 | 0.17 | 0.08 | ZZ |
| SYMXHS | | 55.00 | -3.19 | -1.58 | 56.00 | -2.33 | -1.12 | ZZ |
| T4DEF4 | | 58.50 | 0.31 | 0.15 | 58.50 | 0.17 | 0.08 | ZZ |
| U9SN2D | | 62.00 | 3.81 | 1.89 | 62.00 | 3.67 | 1.75 | ZZ |
| U9VV5B | | 59.75 | 1.56 | 0.77 | 59.50 | 1.17 | 0.56 | ZZ |
| UK327D | X | 57.50 | -0.69 | -0.34 | 54.50 | -3.83 | -1.83 | ZZ |
| UKYMU | | 59.00 | 0.81 | 0.40 | 59.00 | 0.67 | 0.32 | ZZ |
| UVDJR4 | | 61.50 | 3.31 | 1.64 | 62.50 | 4.17 | 1.99 | ZZ |
| UYCEC5 | | 54.30 | -3.89 | -1.93 | 53.85 | -4.48 | -2.15 | ZZ |
| V53FHX | | 58.80 | 0.61 | 0.30 | 60.00 | 1.67 | 0.80 | ZZ |
| V5J871 | | 58.00 | -0.19 | -0.09 | 58.50 | 0.17 | 0.08 | ZZ |
| VKD6CQ | | 55.75 | -2.44 | -1.21 | 55.80 | -2.53 | -1.21 | ZZ |
| W4MJQX | * | 53.15 | -5.04 | -2.50 | 53.20 | -5.13 | -2.46 | ZZ |
| WB6QJN | | 58.80 | 0.61 | 0.30 | 59.20 | 0.87 | 0.41 | ZZ |
| XG4P8R | | 61.10 | 2.91 | 1.44 | 60.70 | 2.37 | 1.13 | ZZ |
| XQD9AM | | 55.45 | -2.74 | -1.36 | 54.95 | -3.38 | -1.62 | ZZ |

Analysis 620

Hardness (Shore A/Type A)

| WebCode | Data Flag | Sample C91-C92 | | | Sample C93-C94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| YILKYA | | 60.00 | 1.81 | 0.90 | 60.00 | 1.67 | 0.80 | ZZ |
| Y87CCV | | 55.50 | -2.69 | -1.33 | 55.00 | -3.33 | -1.60 | ZZ |
| YBC7H1 | * | 52.50 | -5.69 | -2.82 | 53.00 | -5.33 | -2.55 | ZZ |
| YEC892 | | 61.30 | 3.11 | 1.54 | 60.70 | 2.37 | 1.13 | ZZ |
| YK53G2 | | 58.00 | -0.19 | -0.09 | 57.50 | -0.83 | -0.40 | ZZ |
| ZDNGB9 | | 59.50 | 1.31 | 0.65 | 60.00 | 1.67 | 0.80 | ZZ |
| ZPPZVP | | 56.50 | -1.69 | -0.84 | 56.00 | -2.33 | -1.12 | ZZ |

| Grand Means | | Summary Statistics | |
|---|---------------|--------------------|---------------|
| | 58.190 Type A | | 58.335 Type A |
| Stnd Dev Btwn Labs | 2.017 Type A | | 2.090 Type A |
| Statistics based on 109 of 112 reporting participants | | | |

Samples C91-C92: Polyisoprene compound, batch #1 & C93-C94: Polyisoprene compound, batch #2

Comments on assigned Data Flags for Test #620

A4FD9F (X) - Inconsistency in testing between Sample sets.

PX47TA (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within Samples C93-C94.

UK327D (X) - Inconsistency in testing between Sample sets.

Results by Reading Time (as reported by laboratory)

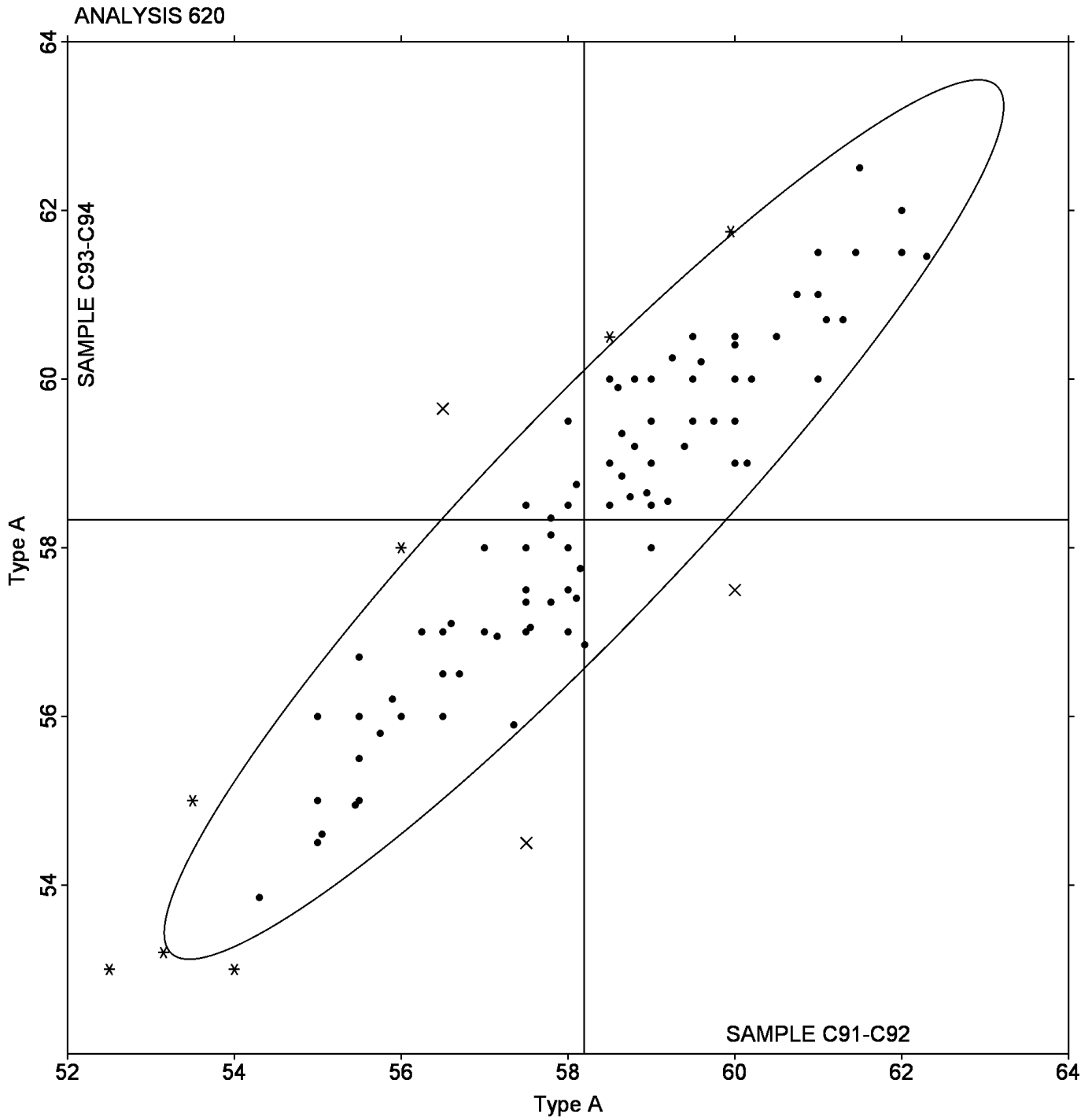
| Reading Time | Sample C91 <i>Polyisoprene compound, batch #1</i> | | | Sample C92 <i>Polyisoprene compound, batch #1</i> | | | Labs Incl / Rpt | |
|------------------------------------|--|--------------|--------------|--|--------------|--------------|-----------------|----|
| | Group Mean | Btwn Lab STD | Diff from GM | Group Mean | Btwn Lab STD | Diff from GM | | |
| Select from list below | 56.25 | 0.00 | -1.94 | 57.00 | 0.00 | -1.33 | 1 | 2 |
| Readings taken within 0 - 5 second | 58.75 | 1.64 | 0.56 | 58.89 | 1.68 | 0.56 | 73 | 81 |
| Readings taken at 5 seconds | 57.85 | 2.01 | -0.34 | 57.85 | 2.17 | -0.48 | 11 | 12 |
| Readings taken after 5+ seconds | 57.63 | 2.23 | -0.57 | 57.43 | 2.29 | -0.90 | 8 | 8 |
| Maximum hardness indicator used | 56.97 | 1.64 | -1.22 | 56.90 | 1.61 | -1.43 | 9 | 9 |

Analysis 620

Hardness (Shore A/Type A)

Grand Mean Sample C91-C92 = 58.190 Type A

Grand Mean Sample C93-C94 = 58.335 Type A



Analysis 630

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

| WebCode | Data Flag | Sample C91-C92 | | | Sample L91-L92 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 1K1BRX | | 3,353.2 | 257.6 | 2.10 | 3,196.8 | 199.3 | 1.60 | ZZ |
| 2B96JG | | 3,269.0 | 173.4 | 1.41 | 3,128.0 | 130.5 | 1.05 | ZZ |
| 3YMQC2 | | 2,944.5 | -151.1 | -1.23 | 2,905.5 | -92.0 | -0.74 | ZZ |
| 8E9NWC | | 2,955.5 | -140.1 | -1.14 | 2,977.7 | -19.8 | -0.16 | ZZ |
| 9RNUTP | | 3,001.5 | -94.1 | -0.77 | 2,837.5 | -160.0 | -1.28 | ZZ |
| AHYPV5 | | 3,133.2 | 37.5 | 0.31 | 3,070.8 | 73.3 | 0.59 | ZZ |
| DGC8C7 | | 2,987.1 | -108.6 | -0.88 | 2,935.7 | -61.7 | -0.50 | ZZ |
| ET8KEC | | 3,095.3 | -0.3 | 0.00 | 3,086.0 | 88.5 | 0.71 | ZZ |
| GC1GEP | | 3,178.8 | 83.2 | 0.68 | 3,033.5 | 36.0 | 0.29 | ZZ |
| GDZNUN | | 3,193.5 | 97.9 | 0.80 | 3,049.5 | 52.0 | 0.42 | ZZ |
| J3D5JF | X | 2,584.5 | -511.1 | -4.16 | 2,229.5 | -768.0 | -6.16 | ZZ |
| K27TVC | | 3,349.8 | 254.2 | 2.07 | 3,300.8 | 303.3 | 2.43 | ZZ |
| LAVGAT | | 3,213.0 | 117.4 | 0.96 | 3,099.5 | 102.0 | 0.82 | ZZ |
| M2D2MA | | 3,018.2 | -77.4 | -0.63 | 3,025.3 | 27.8 | 0.22 | ZZ |
| MTS9X5 | | 3,053.0 | -42.6 | -0.35 | 3,074.0 | 76.5 | 0.61 | ZZ |
| NMTZEJ | | 2,971.5 | -124.1 | -1.01 | 2,811.5 | -186.0 | -1.49 | ZZ |
| PG1ABK | | 3,182.0 | 86.4 | 0.70 | 2,939.0 | -58.5 | -0.47 | ZZ |
| SYZPVG | | 3,020.5 | -75.1 | -0.61 | 2,967.0 | -30.5 | -0.24 | ZZ |
| TEKGDT | | 3,204.0 | 108.4 | 0.88 | 2,833.5 | -164.0 | -1.32 | ZZ |
| UJAHN6 | | 3,057.0 | -38.6 | -0.31 | 3,121.5 | 124.0 | 1.00 | ZZ |
| ULS7RK | | 2,997.5 | -98.1 | -0.80 | 2,919.5 | -78.0 | -0.63 | ZZ |
| VMK6D3 | X | 2,551.6 | -544.1 | -4.43 | 2,500.1 | -497.4 | -3.99 | ZZ |
| VT1R2P | | 3,147.3 | 51.7 | 0.42 | 2,958.8 | -38.7 | -0.31 | ZZ |
| VUYDY7 | | 3,005.5 | -90.1 | -0.73 | 2,748.5 | -249.0 | -2.00 | ZZ |
| W2DB8C | | 3,279.5 | 183.9 | 1.50 | 3,111.1 | 113.6 | 0.91 | ZZ |
| W62MX | | 3,087.2 | -8.5 | -0.07 | 3,110.6 | 113.1 | 0.91 | ZZ |
| W693DP | | 3,012.5 | -83.1 | -0.68 | 2,907.5 | -90.0 | -0.72 | ZZ |
| XQHKF6 | | 3,129.5 | 33.9 | 0.28 | 2,894.0 | -103.5 | -0.83 | ZZ |
| XTDFJC | | 2,885.8 | -209.8 | -1.71 | 2,902.0 | -95.5 | -0.77 | ZZ |
| ZT1BND | | 3,016.9 | -78.8 | -0.64 | 3,058.7 | 61.2 | 0.49 | ZZ |
| ZU1NTZ | | 3,030.6 | -65.0 | -0.53 | 2,923.3 | -74.2 | -0.60 | ZZ |

Analysis 630

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

Summary Statistics

Grand Means

3,095.61 psi

2,997.48 psi

Std Dev Btwn Labs

122.79 psi

124.63 psi

Statistics based on 29 of 31 reporting participants

Summary Statistics in SI Units

Grand Means

21.343 MPa

20.67 MPa

Std Dev Btwn Labs

0.847 MPa

0.86 MPa

Statistics based on 29 of 31 reporting participants

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #630

J3D5JF (X) - Data for all Samples are low.

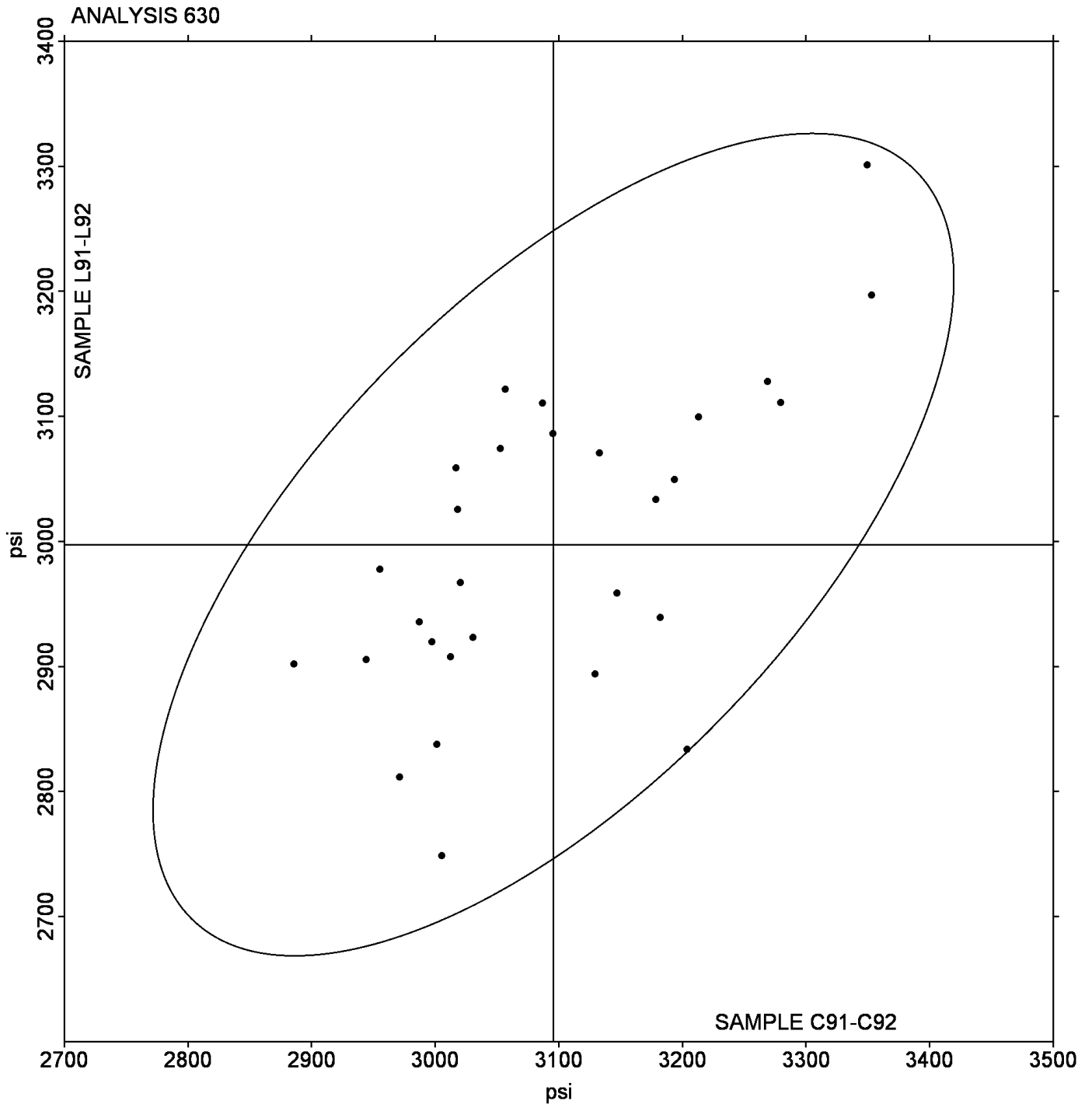
VMK6D3 (X) - Data for all Samples are low. Possible Systematic Error.

Analysis 630

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

Grand Mean Sample C91-C92 = 3,095.61 psi

Grand Mean Sample L91-L92 = 2,997.48 psi



Analysis 631

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

| WebCode | Data Flag | Sample C91-C92 | | | Sample L91-L92 | | | Instr Code |
|---------|-----------|----------------|----------------------|--------|----------------|----------------------|--------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 3B5YWF | | 528.0 | -20.0 | -1.10 | 533.5 | -0.4 | -0.02 | ZZ |
| 9JVTXS | | 573.5 | 25.5 | 1.41 | 542.5 | 8.6 | 0.42 | ZZ |
| BP9FCN | | 517.0 | -31.0 | -1.71 | 501.5 | -32.4 | -1.58 | ZZ |
| CLQ7UL | X | 866.1 | 318.2 | 17.54 | 812.6 | 278.6 | 13.60 | ZZ |
| DVKZ9D | | 534.7 | -13.3 | -0.73 | 517.7 | -16.2 | -0.79 | ZZ |
| DZQSV4 | | 559.4 | 11.4 | 0.63 | 533.9 | 0.0 | 0.00 | ZZ |
| E6D36X | | 534.5 | -13.5 | -0.74 | 524.5 | -9.4 | -0.46 | ZZ |
| E76NP5 | | 526.5 | -21.5 | -1.18 | 502.5 | -31.4 | -1.53 | ZZ |
| ERPZYU | | 514.0 | -34.0 | -1.87 | 503.0 | -30.9 | -1.51 | ZZ |
| FMA35J | | 541.5 | -6.5 | -0.36 | 524.0 | -9.9 | -0.48 | ZZ |
| G4QETP | X | 2,706.4 | 2,158.4 | 118.97 | 2,723.0 | 2,189.1 | 106.83 | ZZ |
| GJ75BP | | 548.5 | 0.5 | 0.03 | 527.0 | -6.9 | -0.34 | ZZ |
| H5QKCG | X | 467.0 | -81.0 | -4.46 | 443.5 | -90.4 | -4.41 | ZZ |
| HHWK51 | | 554.5 | 6.5 | 0.36 | 527.0 | -6.9 | -0.34 | ZZ |
| J8XB1V | | 568.2 | 20.2 | 1.12 | 576.7 | 42.7 | 2.09 | ZZ |
| KYJGW7 | | 577.0 | 29.0 | 1.60 | 545.5 | 11.6 | 0.57 | ZZ |
| M3C3W9 | | 526.8 | -21.2 | -1.17 | 502.5 | -31.4 | -1.53 | ZZ |
| N7WQQS | | 556.2 | 8.2 | 0.45 | 534.0 | 0.1 | 0.00 | ZZ |
| P76AFE | | 556.5 | 8.5 | 0.47 | 544.0 | 10.1 | 0.49 | ZZ |
| PBDWUB | | 542.0 | -6.0 | -0.33 | 525.0 | -8.9 | -0.43 | ZZ |
| PHYBMH | | 568.7 | 20.8 | 1.14 | 556.0 | 22.1 | 1.08 | ZZ |
| RAEAQB | | 567.5 | 19.5 | 1.08 | 550.0 | 16.1 | 0.79 | ZZ |
| RSHAH6 | | 569.3 | 21.3 | 1.17 | 567.4 | 33.5 | 1.63 | ZZ |
| T69ESS | | 555.5 | 7.5 | 0.42 | 556.0 | 22.1 | 1.08 | ZZ |
| U3XPNA | | 577.5 | 29.5 | 1.63 | 558.0 | 24.1 | 1.18 | ZZ |
| V6QZ6N | | 535.0 | -13.0 | -0.71 | 505.0 | -28.9 | -1.41 | ZZ |
| W9G8EH | | 540.0 | -8.0 | -0.44 | 540.0 | 6.1 | 0.30 | ZZ |
| YSH6D2 | | 534.0 | -14.0 | -0.77 | 544.0 | 10.1 | 0.49 | ZZ |
| YTQ3AL | | 536.0 | -12.0 | -0.66 | 520.5 | -13.4 | -0.65 | ZZ |
| ZHHUV7 | | 554.7 | 6.7 | 0.37 | 556.3 | 22.3 | 1.09 | ZZ |
| ZNFNF8 | | 546.0 | -2.0 | -0.11 | 531.5 | -2.4 | -0.12 | ZZ |

**Rubber Interlaboratory Testing Program
Analysis 631****Ultimate Elongation: Precured vs. Lab-Cured Samples (percent)**

| | | Summary Statistics | |
|---|----------------|--------------------|----------------|
| Grand Means | 547.96 percent | | 533.91 percent |
| Std Dev Btwn Labs | 18.14 percent | | 20.49 percent |
| Statistics based on 28 of 31 reporting participants | | | |

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #631

CLQ7UL (X) - Data for all Samples are high.

G4QETP (X) - Extreme data for both Sample sets.

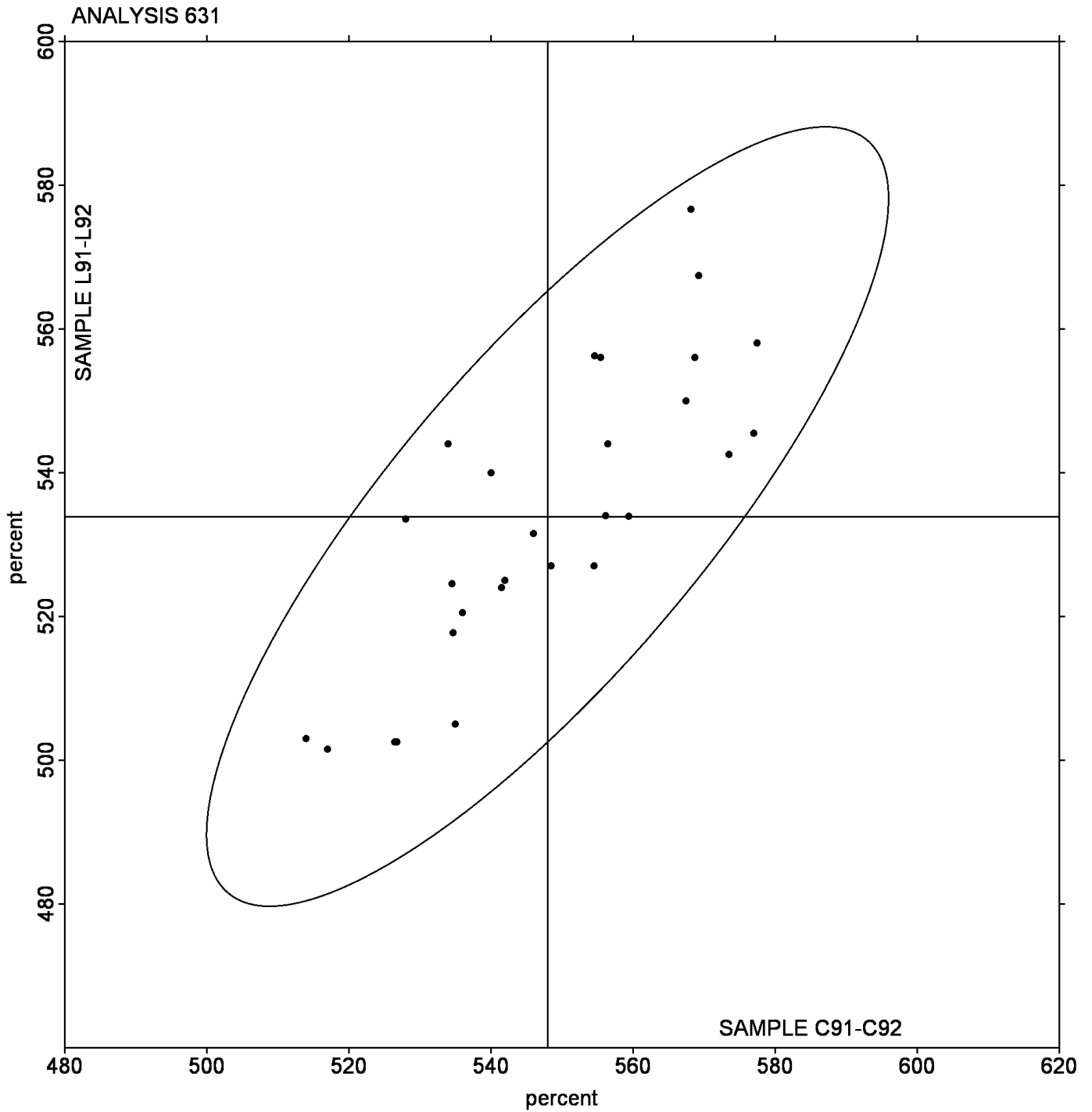
H5QKCG (X) - Data for all Samples are low.

Analysis 631

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

Grand Mean Sample C91-C92 = 547.96 percent

Grand Mean Sample L91-L92 = 533.91 percent



Analysis 632

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

| WebCode | Data Flag | Sample C91-C92 | | | Sample L91-L92 | | | Instr Code |
|---------|-----------|----------------|----------------------|--------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 14CYC5 | | 1,425.4 | 69.8 | 1.15 | 1,453.2 | 102.7 | 0.96 | ZZ |
| 1VY8GC | | 1,385.3 | 29.7 | 0.49 | 1,395.9 | 45.4 | 0.42 | ZZ |
| 314EFF | | 1,345.5 | -10.1 | -0.17 | 1,334.5 | -16.0 | -0.15 | ZZ |
| 3ZNHPG | | 1,401.5 | 45.9 | 0.76 | 1,395.5 | 45.0 | 0.42 | ZZ |
| 4AA3XR | | 1,378.5 | 22.9 | 0.38 | 1,159.5 | -191.0 | -1.79 | ZZ |
| 79PF9T | | 1,349.5 | -6.1 | -0.10 | 1,544.5 | 194.0 | 1.82 | ZZ |
| 7CY4ZQ | X | 694.4 | -661.2 | -10.90 | 875.4 | -475.1 | -4.45 | ZZ |
| 8VN1ZA | | 1,305.0 | -50.6 | -0.83 | 1,482.5 | 132.0 | 1.24 | ZZ |
| 9YGHC3 | | 1,416.5 | 60.9 | 1.00 | 1,413.0 | 62.5 | 0.59 | ZZ |
| BG7U3U | | 1,315.8 | -39.8 | -0.66 | 1,344.5 | -6.0 | -0.06 | ZZ |
| CV2T9N | | 1,354.4 | -1.2 | -0.02 | 1,453.2 | 102.7 | 0.96 | ZZ |
| CWS1ET | | 1,403.0 | 47.4 | 0.78 | 1,355.5 | 5.0 | 0.05 | ZZ |
| D11Q71 | | 1,287.0 | -68.6 | -1.13 | 1,140.5 | -210.0 | -1.97 | ZZ |
| GMLQW | | 1,297.5 | -58.1 | -0.96 | 1,337.5 | -13.0 | -0.12 | ZZ |
| H5A5E8 | | 1,310.6 | -45.0 | -0.74 | 1,479.3 | 128.8 | 1.21 | ZZ |
| KC9N9G | | 1,266.0 | -89.6 | -1.48 | 1,180.0 | -170.5 | -1.60 | ZZ |
| KN2XCB | | 1,460.4 | 104.8 | 1.73 | 1,263.8 | -86.7 | -0.81 | ZZ |
| L61ANX | | 1,389.5 | 33.9 | 0.56 | 1,254.6 | -95.9 | -0.90 | ZZ |
| MT21B8 | | 1,334.4 | -21.2 | -0.35 | 1,446.0 | 95.5 | 0.90 | ZZ |
| NHMPV | | 1,414.9 | 59.3 | 0.98 | 1,433.0 | 82.5 | 0.77 | ZZ |
| NYCN5H | | 1,319.7 | -35.9 | -0.59 | 1,310.2 | -40.3 | -0.38 | ZZ |
| P36ZKE | | 1,326.5 | -29.1 | -0.48 | 1,227.0 | -123.5 | -1.16 | ZZ |
| PACJ8X | | 1,391.7 | 36.1 | 0.60 | 1,362.1 | 11.6 | 0.11 | ZZ |
| RKCSQ7 | | 1,412.0 | 56.4 | 0.93 | 1,266.5 | -84.0 | -0.79 | ZZ |
| RUKGVR | | 1,456.5 | 100.9 | 1.66 | 1,490.0 | 139.5 | 1.31 | ZZ |
| VTK4NL | | 1,387.9 | 32.3 | 0.53 | 1,392.7 | 42.3 | 0.40 | ZZ |
| XKJBQB | | 1,350.9 | -4.7 | -0.08 | 1,447.7 | 97.2 | 0.91 | ZZ |
| XNTEF7 | | 1,314.0 | -41.6 | -0.69 | 1,293.5 | -57.0 | -0.53 | ZZ |
| XUUL73 | | 1,388.0 | 32.4 | 0.53 | 1,381.5 | 31.0 | 0.29 | ZZ |
| Z2Q6G2 | * | 1,183.0 | -172.6 | -2.85 | 1,276.5 | -74.0 | -0.69 | ZZ |
| ZAY55Y | | 1,297.0 | -58.6 | -0.97 | 1,200.5 | -150.0 | -1.41 | ZZ |

Analysis 632

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

Summary Statistics

Grand Means

1,355.59 psi

1,350.49 psi

Std Dev Btwn Labs

60.66 psi

106.75 psi

Statistics based on 30 of 31 reporting participants

Summary Statistics in SI Units

Grand Means

9.3464 MPa

9.31 MPa

Std Dev Btwn Labs

0.4182 MPa

0.74 MPa

Statistics based on 30 of 31 reporting participants

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #632

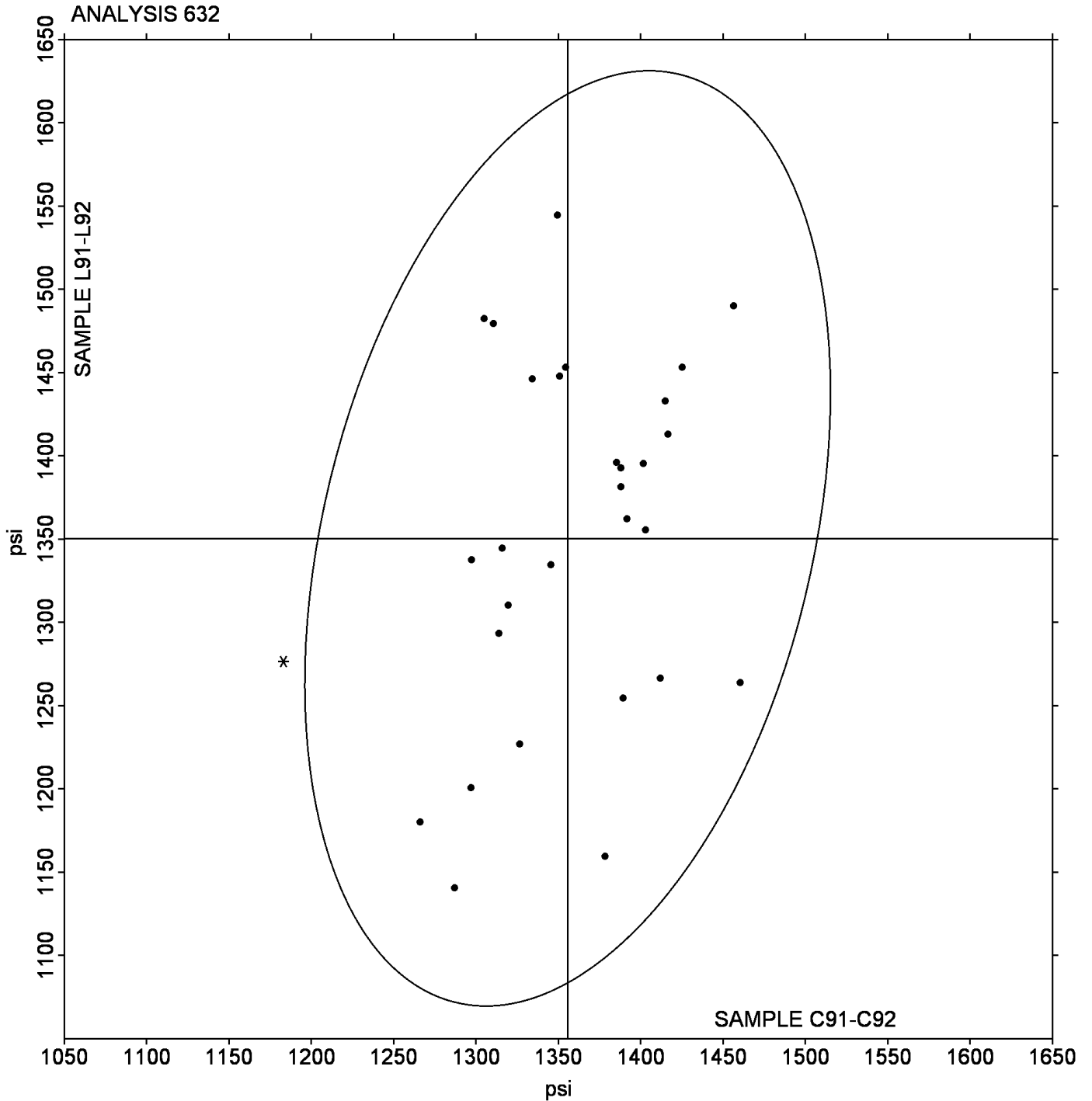
7CY4ZQ (X) - Data for all Samples are low.

Analysis 632

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

Grand Mean Sample C91-C92 = 1,355.59 psi

Grand Mean Sample L91-L92 = 1,350.49 psi



Analysis 633

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

| WebCode | Data Flag | Sample C91-C92 | | | Sample L91-L92 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 1K928G | | 324.2 | 12.0 | 0.77 | 290.1 | -25.9 | -0.96 | ZZ |
| 1TNKME | | 306.8 | -5.3 | -0.34 | 314.7 | -1.2 | -0.05 | ZZ |
| 2MN6WC | | 329.5 | 17.4 | 1.11 | 349.4 | 33.4 | 1.24 | ZZ |
| 3KNPYF | | 305.9 | -6.2 | -0.40 | 324.7 | 8.8 | 0.33 | ZZ |
| 49ATJU | | 323.0 | 10.9 | 0.70 | 283.5 | -32.4 | -1.20 | ZZ |
| 68T6CZ | | 301.0 | -11.1 | -0.71 | 300.5 | -15.4 | -0.57 | ZZ |
| CDW32K | X | 231.4 | -80.8 | -5.17 | 260.8 | -55.2 | -2.05 | ZZ |
| CURWYS | | 325.9 | 13.8 | 0.88 | 334.4 | 18.5 | 0.69 | ZZ |
| D9NT6N | | 293.5 | -18.6 | -1.19 | 279.0 | -36.9 | -1.37 | ZZ |
| EF5BJG | | 351.1 | 39.0 | 2.50 | 312.7 | -3.3 | -0.12 | ZZ |
| F171QN | | 302.7 | -9.5 | -0.61 | 301.0 | -15.0 | -0.56 | ZZ |
| HWUGE | | 335.5 | 23.4 | 1.50 | 331.5 | 15.6 | 0.58 | ZZ |
| J4QPLY | | 291.5 | -20.6 | -1.32 | 305.5 | -10.4 | -0.39 | ZZ |
| J8RN54 | | 323.0 | 10.9 | 0.70 | 329.4 | 13.4 | 0.50 | ZZ |
| JQ7ZPG | | 280.0 | -32.1 | -2.06 | 289.0 | -26.9 | -1.00 | ZZ |
| LLDL5 | | 304.9 | -7.3 | -0.47 | 355.3 | 39.3 | 1.46 | ZZ |
| LSYLRX | | 311.5 | -0.6 | -0.04 | 315.0 | -0.9 | -0.03 | ZZ |
| LSZWML | | 293.5 | -18.6 | -1.19 | 315.5 | -0.4 | -0.02 | ZZ |
| MNEJ6Q | | 334.5 | 22.4 | 1.43 | 337.5 | 21.6 | 0.80 | ZZ |
| NENDYA | | 309.7 | -2.5 | -0.16 | 330.7 | 14.8 | 0.55 | ZZ |
| P3JS1A | | 310.0 | -2.1 | -0.14 | 377.0 | 61.1 | 2.27 | ZZ |
| PYC2VN | | 327.5 | 15.4 | 0.99 | 294.0 | -21.9 | -0.81 | ZZ |
| QKZU4A | | 314.1 | 1.9 | 0.12 | 342.8 | 26.9 | 1.00 | ZZ |
| T3SXW2 | | 315.5 | 3.4 | 0.22 | 256.0 | -59.9 | -2.22 | ZZ |
| T7C925 | | 291.5 | -20.6 | -1.32 | 276.0 | -39.9 | -1.48 | ZZ |
| VXXSLX | | 305.0 | -7.1 | -0.46 | 340.0 | 24.1 | 0.89 | ZZ |
| VYB9MH | | 302.5 | -9.6 | -0.62 | 283.0 | -32.9 | -1.22 | ZZ |
| WVAHZ3 | | 320.5 | 8.4 | 0.54 | 331.0 | 15.1 | 0.56 | ZZ |
| XX2NKN | | 317.5 | 5.4 | 0.34 | 329.0 | 13.1 | 0.48 | ZZ |
| XX2R8W | | 297.7 | -14.4 | -0.92 | 332.9 | 16.9 | 0.63 | ZZ |
| Z5TV45 | | 314.3 | 2.2 | 0.14 | 317.2 | 1.2 | 0.05 | ZZ |

Analysis 633

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

Summary Statistics

Grand Means

312.12 psi

315.94 psi

Std Dev Btwn Labs

15.61 psi

26.94 psi

Statistics based on 30 of 31 reporting participants

Summary Statistics in SI Units

Grand Means

2.1520 MPa

2.18 MPa

Std Dev Btwn Labs

0.1076 MPa

0.19 MPa

Statistics based on 30 of 31 reporting participants

All samples : Polyisoprene compound, batch #1

Comments on assigned Data Flags for Test #633

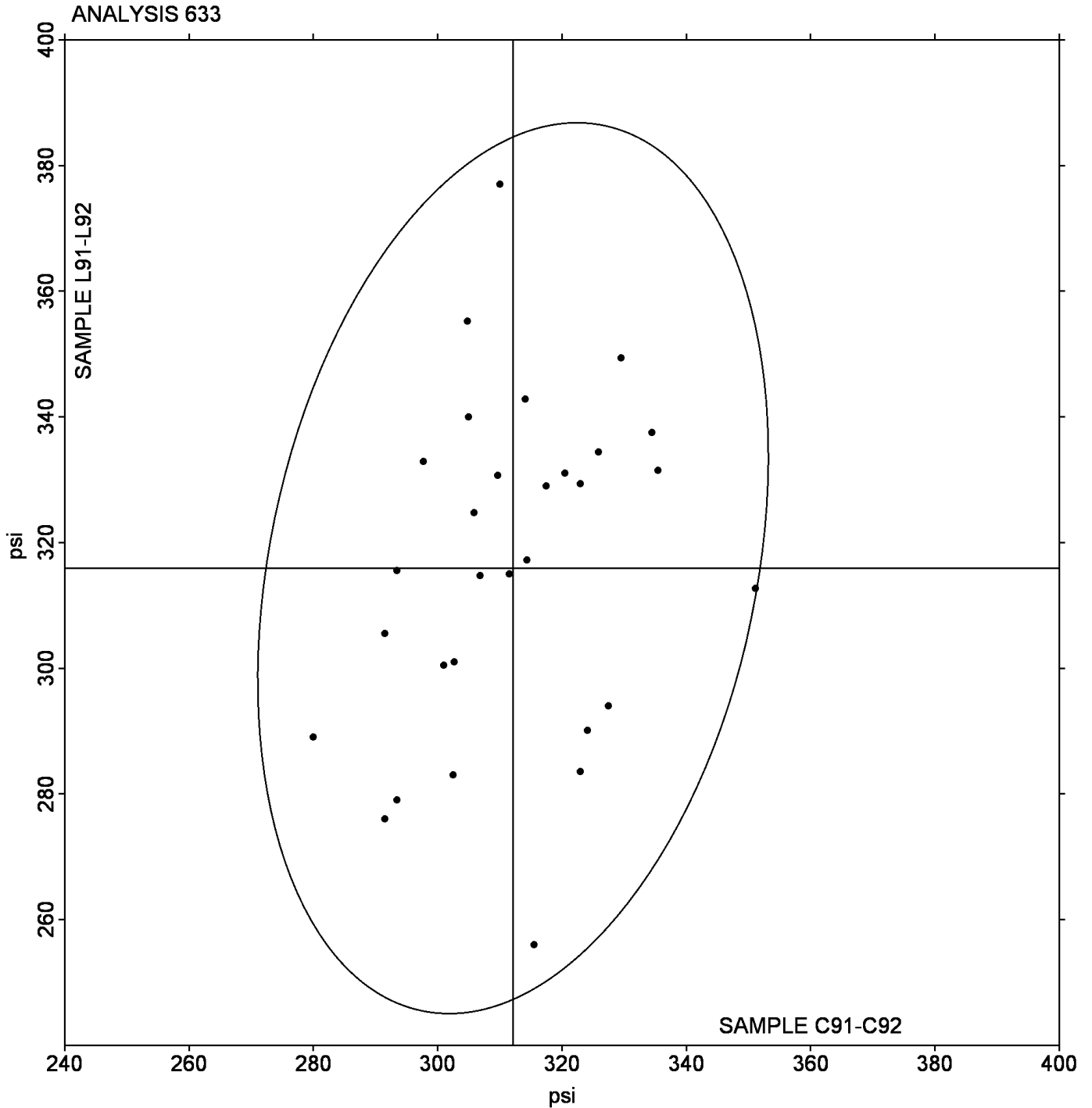
CDW32K (X) - Data for Sample set C91-C92 are low.

Analysis 633

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

Grand Mean Sample C91-C92 = 312.12 psi

Grand Mean Sample L91-L92 = 315.94 psi



Rubber Interlaboratory Testing Program

Analysis 660

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

| WebCode | Data Flag | Sample U91-U92 | | | Sample U93-U94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 1JEU14 | | 47.38 | -0.48 | -0.52 | 49.05 | 0.13 | 0.13 | MR |
| 2BLLBB | | 48.83 | 0.97 | 1.06 | 49.68 | 0.77 | 0.76 | MR |
| 2VKVWE | * | 50.85 | 2.99 | 3.26 | 51.57 | 2.65 | 2.63 | MZ |
| 368XD1 | | 47.12 | -0.75 | -0.81 | 48.05 | -0.87 | -0.86 | MR |
| 3MHN7 | | 47.63 | -0.23 | -0.25 | 48.80 | -0.12 | -0.12 | MR |
| 3P7R4D | | 47.23 | -0.63 | -0.69 | 47.67 | -1.25 | -1.24 | MR |
| 4SJW5S | | 46.58 | -1.28 | -1.39 | 46.97 | -1.95 | -1.94 | MP |
| 6FWAKB | | 48.00 | 0.14 | 0.15 | 48.38 | -0.53 | -0.53 | MR |
| 7JUXS5 | | 46.95 | -0.91 | -1.00 | 48.35 | -0.57 | -0.56 | MR |
| 8DU6VT | | 48.32 | 0.45 | 0.50 | 49.20 | 0.28 | 0.28 | MR |
| 8F9WA9 | | 47.40 | -0.46 | -0.50 | 48.68 | -0.23 | -0.23 | MR |
| 9K8JTQ | | 47.53 | -0.33 | -0.36 | 48.69 | -0.23 | -0.23 | MR |
| 9P7QSU | | 48.25 | 0.39 | 0.42 | 50.23 | 1.32 | 1.31 | MR |
| 9QDL5Y | | 47.82 | -0.05 | -0.05 | 49.28 | 0.37 | 0.36 | MR |
| 9QP9SC | | 49.40 | 1.54 | 1.68 | 51.12 | 2.20 | 2.19 | TV |
| D1PUYF | | 48.41 | 0.54 | 0.59 | 48.93 | 0.01 | 0.01 | MR |
| DS6KDZ | | 48.41 | 0.55 | 0.60 | 48.35 | -0.57 | -0.57 | MM |
| G7PTFD | | 47.93 | 0.06 | 0.07 | 49.64 | 0.72 | 0.71 | TV |
| GDSK3Q | | 47.45 | -0.41 | -0.45 | 48.63 | -0.28 | -0.28 | MR |
| GQR95K | | 47.55 | -0.31 | -0.34 | 49.23 | 0.32 | 0.31 | MP |
| KP26UN | | 47.85 | -0.01 | -0.01 | 49.42 | 0.50 | 0.50 | MR |
| L5U8DR | | 48.78 | 0.92 | 1.00 | 49.34 | 0.43 | 0.42 | TV |
| LRJM78 | | 47.08 | -0.78 | -0.85 | 48.30 | -0.62 | -0.61 | MR |
| LVV96J | | 47.85 | -0.01 | -0.01 | 49.08 | 0.16 | 0.16 | MP |
| N9TJ29 | | 47.18 | -0.68 | -0.74 | 49.15 | 0.23 | 0.23 | MR |
| NTDE43 | | 46.92 | -0.95 | -1.03 | 47.62 | -1.30 | -1.29 | MR |
| QAGQG | | 49.02 | 1.15 | 1.26 | 49.92 | 1.00 | 0.99 | MR |
| RBJK5F | | 48.08 | 0.22 | 0.24 | 50.13 | 1.22 | 1.21 | MR |
| SHGNHS | | 47.62 | -0.25 | -0.27 | 48.80 | -0.12 | -0.12 | MR |
| T6LWDZ | | 47.93 | 0.07 | 0.07 | 48.20 | -0.71 | -0.71 | XX |
| U3L814 | * | 45.45 | -2.41 | -2.63 | 46.40 | -2.52 | -2.50 | MR |
| U6C2KS | | 47.93 | 0.07 | 0.08 | 49.02 | 0.10 | 0.10 | MR |
| V3ZFPS | | 47.48 | -0.38 | -0.41 | 48.52 | -0.40 | -0.40 | MR |
| VPMQZ | | 48.70 | 0.84 | 0.91 | 48.68 | -0.23 | -0.23 | MR |
| XDGS78 | X | 45.35 | -2.51 | -2.74 | 50.40 | 1.48 | 1.47 | TV |

Analysis 660

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

| WebCode | Data Flag | Sample U91-U92 | | | Sample U93-U94 | | | Instr Code |
|---------|-----------|----------------|----------------------|------|----------------|----------------------|------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| YCDU15 | | 48.26 | 0.40 | 0.44 | 49.04 | 0.12 | 0.12 | MR |

Summary Statistics

Grand Means

47.863 ML 1 + 4

48.918 ML 1 + 4

Std Dev Btwn Labs

0.917 ML 1 + 4

1.006 ML 1 + 4

Statistics based on 35 of 36 reporting participants

Samples U91-U92: SBR & U93-U94: Butyl

Comments on assigned Data Flags for Test #660

XDGS78 (X) - Data for Sample set U91 are low.

Instrument Code Listing**660** Mooney Viscosity: 4-minute readings (ML 1 + 4)**Instruments:**

(ML) Alpha Technologies/Monsanto model not specified

(MM) Alpha Technologies Model 1xxx or OSM

(MP) Monsanto Compact Mooney Viscometer

(MR) Alpha Technologies Model MV2000/MV2000E

(MZ) Rebuilt Monsanto Mooney Viscometer

(SF) Scott STI (any model)

(TV) Tech Pro Visc Tech (any model)

(XA) Special In-House Instrument

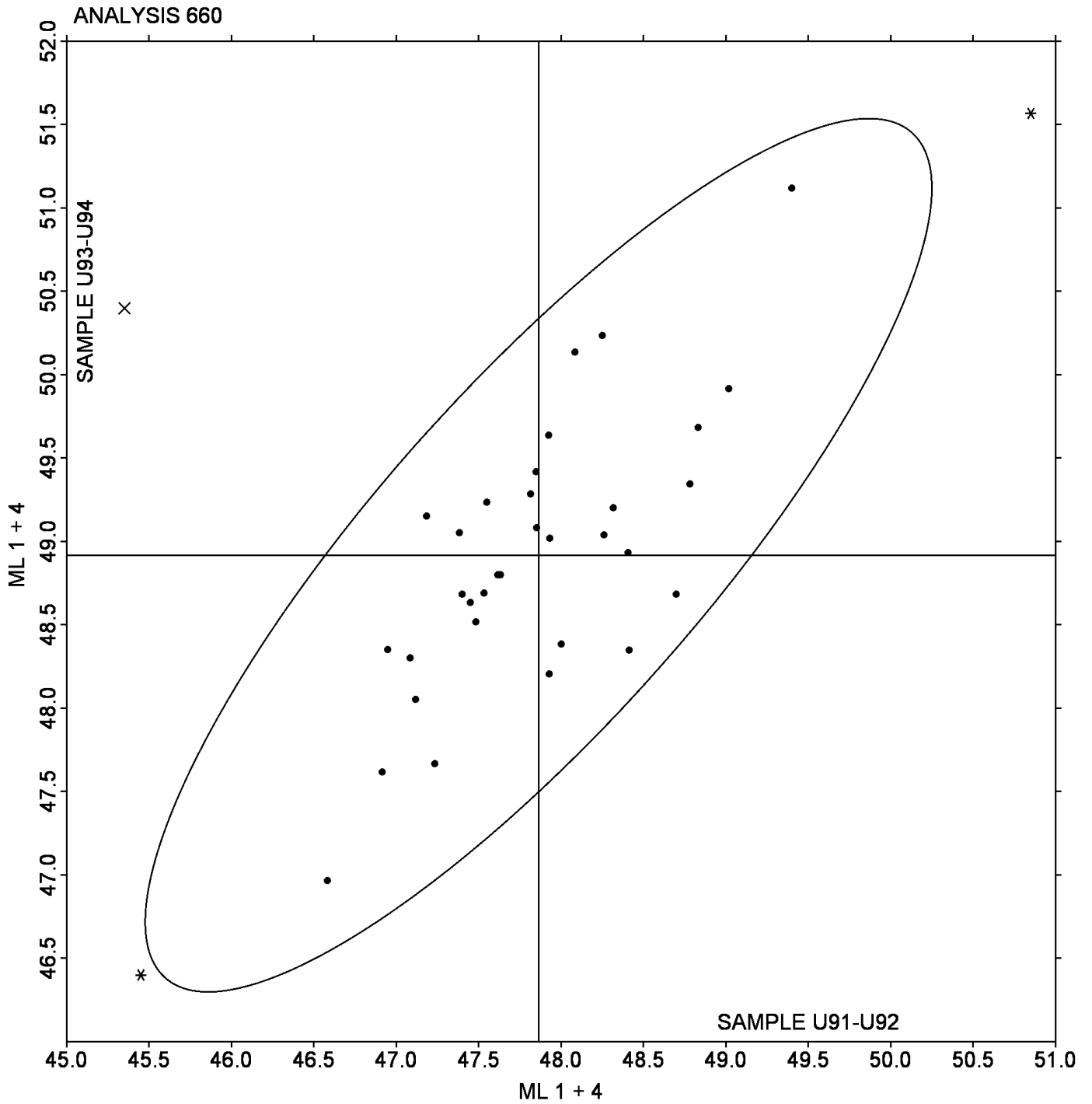
(XX) Instrument make/model not specified by lab

Analysis 660

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

Grand Mean Sample U91-U92 = 47.863 ML 1 + 4

Grand Mean Sample U93-U94 = 48.918 ML 1 + 4



Analysis 661

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

| WebCode | Data Flag | Sample U91-U92 | | | Sample U93-U94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 3XAT8X | | 47.55 | -0.15 | -0.21 | 46.65 | -0.24 | -0.33 | MM |
| 5E34HZ | | 47.85 | 0.15 | 0.21 | 46.70 | -0.20 | -0.27 | MR |
| 6TMFXK | | 48.70 | 1.00 | 1.40 | 47.03 | 0.14 | 0.19 | MR |
| 9FKMT7 | X | 50.85 | 3.15 | 4.41 | 49.05 | 2.16 | 2.92 | MZ |
| 9FS7X9 | | 47.62 | -0.09 | -0.12 | 46.92 | 0.02 | 0.03 | MR |
| 9VM8GE | | 46.92 | -0.79 | -1.10 | 46.15 | -0.74 | -1.01 | MR |
| 9YA3C3 | | 48.78 | 1.08 | 1.51 | 47.38 | 0.49 | 0.66 | TV |
| AGD76B | X | 49.40 | 1.70 | 2.38 | 51.02 | 4.12 | 5.58 | TV |
| B2RSNR | | 48.26 | 0.56 | 0.79 | 47.17 | 0.28 | 0.38 | MR |
| B8L5QL | | 47.18 | -0.52 | -0.73 | 46.52 | -0.38 | -0.51 | MR |
| BCJN1K | | 46.58 | -1.12 | -1.57 | 45.43 | -1.47 | -1.99 | MP |
| CQWJEU | | 47.85 | 0.15 | 0.21 | 47.15 | 0.26 | 0.35 | MR |
| DDXLV | | 48.32 | 0.61 | 0.86 | 47.62 | 0.72 | 0.98 | MR |
| E7B4YQ | X | 45.35 | -2.35 | -3.30 | 48.66 | 1.76 | 2.39 | XX |
| FK68N1 | | 47.82 | 0.11 | 0.16 | 47.38 | 0.49 | 0.66 | MR |
| FYMUQ1 | X | 49.02 | 1.31 | 1.84 | 42.18 | -4.71 | -6.38 | MR |
| G9LVW4 | | 47.93 | 0.23 | 0.32 | 47.22 | 0.32 | 0.44 | MR |
| GPVPHL | | 47.38 | -0.32 | -0.45 | 47.23 | 0.34 | 0.46 | MR |
| JSAXM3 | | 48.41 | 0.71 | 1.00 | 46.82 | -0.08 | -0.11 | MM |
| K5FW3T | | 48.83 | 1.13 | 1.59 | 48.17 | 1.27 | 1.72 | MR |
| KXA9Q8 | | 47.08 | -0.62 | -0.87 | 46.78 | -0.11 | -0.15 | MR |
| LKQLV7 | * | 48.41 | 0.70 | 0.99 | 46.09 | -0.80 | -1.09 | MR |
| M7R9F7 | | 47.93 | 0.22 | 0.32 | 46.73 | -0.17 | -0.23 | TV |
| Q3KBJR | | 48.00 | 0.30 | 0.42 | 46.73 | -0.16 | -0.22 | MR |
| Q8GRQC | | 47.12 | -0.59 | -0.82 | 46.40 | -0.49 | -0.67 | MR |
| QNZ2B2 | | 47.93 | 0.23 | 0.32 | 46.62 | -0.28 | -0.38 | XX |
| RK35S7 | * | 45.45 | -2.25 | -3.16 | 45.10 | -1.79 | -2.43 | MR |
| S39HJF | * | 48.08 | 0.38 | 0.53 | 48.62 | 1.72 | 2.33 | MR |
| WMFC62 | | 47.53 | -0.17 | -0.24 | 47.25 | 0.35 | 0.47 | MR |
| XG7DLN | | 47.48 | -0.22 | -0.31 | 46.67 | -0.23 | -0.31 | MR |
| XX97PP | | 47.40 | -0.30 | -0.42 | 46.50 | -0.39 | -0.53 | MR |
| YCURT4 | | 48.25 | 0.55 | 0.77 | 48.38 | 1.49 | 2.02 | MR |
| Z7RCT6 | | 47.45 | -0.25 | -0.35 | 46.82 | -0.08 | -0.11 | MR |
| ZLJTEC | | 46.95 | -0.75 | -1.05 | 46.63 | -0.26 | -0.35 | MR |

Analysis 661

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

| | | Summary Statistics | |
|---|-----------------|--------------------|--|
| Grand Means | 47.702 ML 1 + 8 | 46.895 ML 1 + 8 | |
| Std Dev Btwn Labs | 0.713 ML 1 + 8 | 0.738 ML 1 + 8 | |
| Statistics based on 30 of 34 reporting participants | | | |

Please refer to the sample information provided for Analysis 660.

Comments on assigned Data Flags for Test #661

9FKMT7 (X) - Data for all Samples are high.

AGD76B (X) - Data for Sample set U93-U94 are high. Also inconsistent in testing within Sample set U93-U94.

E7B4YQ (X) - Data for Sample set U91-U92 are low. Also inconsistent in testing within Sample set U91-U92.

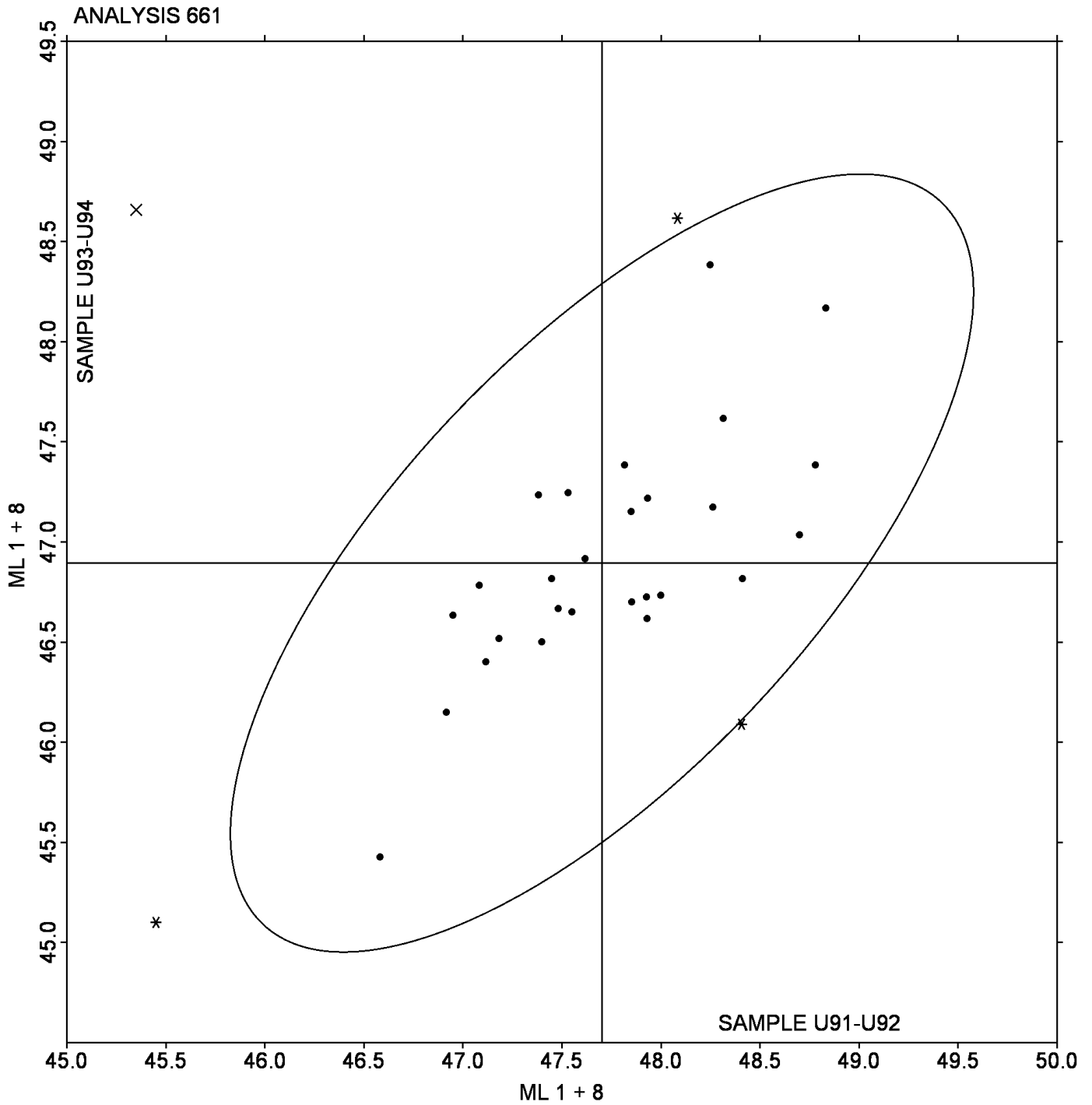
FYMUQ1 (X) - Data for Sample set U93-U94 are low.

Analysis 661

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

Grand Mean Sample U91-U92 = 47.702 ML 1 + 8

Grand Mean Sample U93-U94 = 46.895 ML 1 + 8



Analysis 662

Mooney Stress Relaxation: t80 (seconds)

| WebCode | Data Flag | Sample U91-U92 | | | Sample U93-U94 | | | Instr Code |
|---------|-----------|----------------|----------------------|----------|----------------|----------------------|--------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 6FBFXF | | 11.13 | -0.27 | -0.25 | 5.533 | -0.279 | -0.19 | MR |
| AVDJMQ | | 12.24 | 0.84 | 0.77 | 5.418 | -0.394 | -0.27 | XX |
| MAHQA | | 11.53 | 0.13 | 0.12 | 5.367 | -0.445 | -0.30 | MR |
| P9VEED | | 9.48 | -1.93 | -1.78 | 9.447 | 3.635 | 2.46 | MR |
| PAQ4QM | X | 2,262.60 | 2,251.20 | 2,073.10 | 490.800 | 484.988 | 328.10 | TV |
| QQ3SK2 | | 13.21 | 1.80 | 1.66 | 5.335 | -0.477 | -0.32 | MR |
| RDPZQ1 | | 10.70 | -0.71 | -0.65 | 5.000 | -0.812 | -0.55 | XX |
| S9G9EC | | 11.45 | 0.05 | 0.04 | 5.272 | -0.540 | -0.37 | MR |
| Y5H8CW | | 11.50 | 0.10 | 0.09 | 5.123 | -0.689 | -0.47 | MR |

Summary Statistics

Grand Means

11.405 seconds

5.8119 seconds

Std Dev Btwn Labs

1.086 seconds

1.4782 seconds

Statistics based on 8 of 9 reporting participants

Samples U91-U92: SBR & U93-U94: Butyl

Comments on assigned Data Flags for Test #662

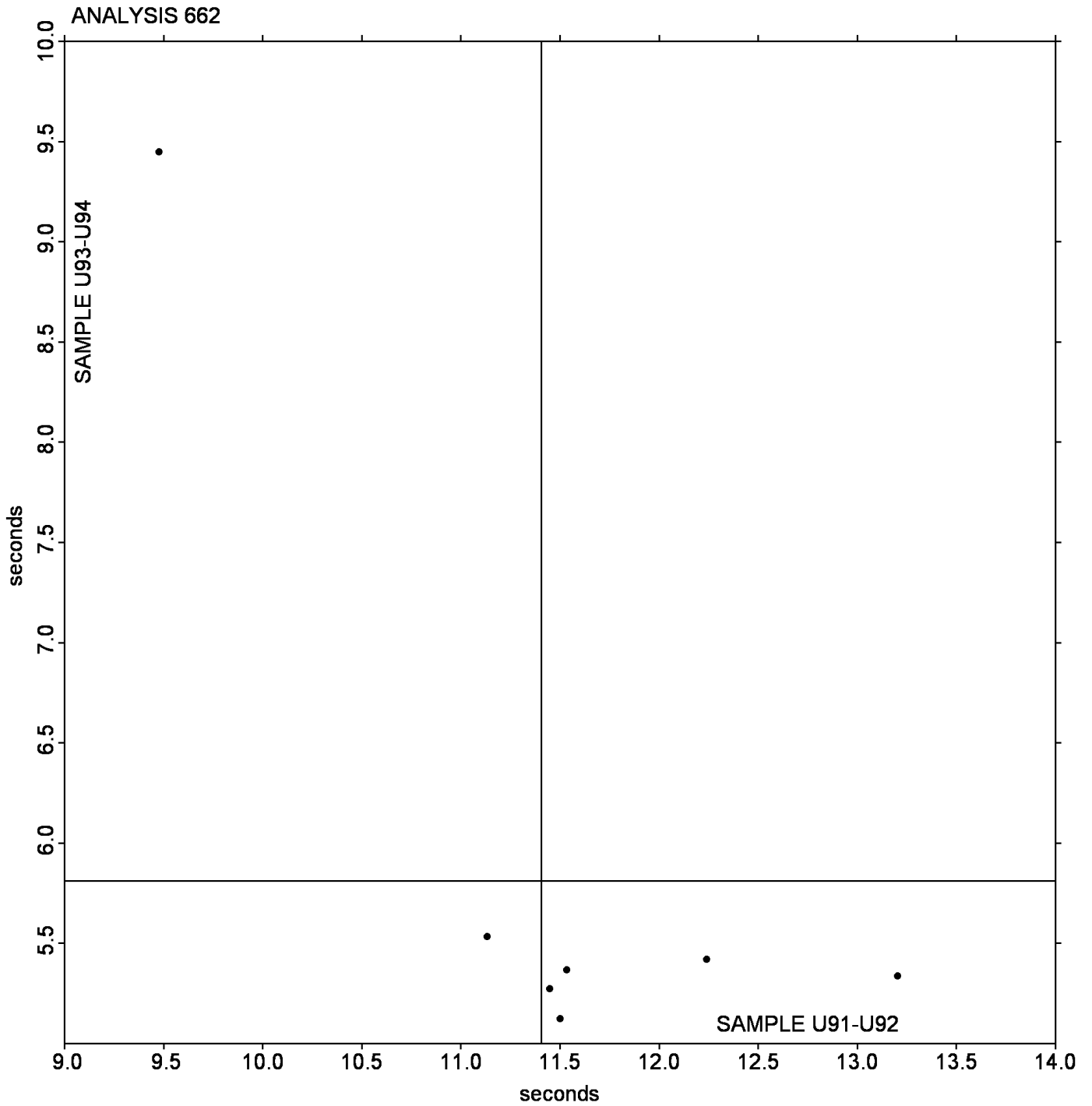
PAQ4QM (X) - Extreme data for both Sample sets.

Analysis 662

Mooney Stress Relaxation: t80 (seconds)

Grand Mean Sample U91-U92 = 11.405 seconds

Grand Mean Sample U93-U94 = 5.8119 seconds



Analysis 663

Mooney Stress Relaxation: X30 (percent)

| WebCode | Data Flag | Sample U91-U92 | | | Sample U93-U94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 15ZV9A | | 78.12 | -3.99 | -0.41 | 92.62 | 1.14 | 0.10 | TV |
| 1RWE2V | | 86.54 | 4.43 | 0.45 | 96.55 | 5.07 | 0.42 | MR |
| C6NXJ8 | | 86.67 | 4.55 | 0.47 | 95.98 | 4.50 | 0.38 | MR |
| HQC4H8 | | 86.94 | 4.82 | 0.50 | 96.50 | 5.01 | 0.42 | XX |
| LCVF26 | | 85.31 | 3.20 | 0.33 | 95.63 | 4.15 | 0.35 | MR |
| QL7NQQ | | 86.13 | 4.02 | 0.41 | 95.40 | 3.91 | 0.33 | MR |
| TE9M48 | | 57.20 | -24.91 | -2.56 | 59.82 | -31.67 | -2.65 | MR |
| TH2KL5 | | 85.79 | 3.68 | 0.38 | 95.31 | 3.83 | 0.32 | XX |
| UVVF4B | | 86.31 | 4.20 | 0.43 | 95.55 | 4.07 | 0.34 | MR |

Summary Statistics

Grand Means

82.112 percent

91.485 percent

Std Dev Btwn Labs

9.732 percent

11.932 percent

Statistics based on 9 of 9 reporting participants

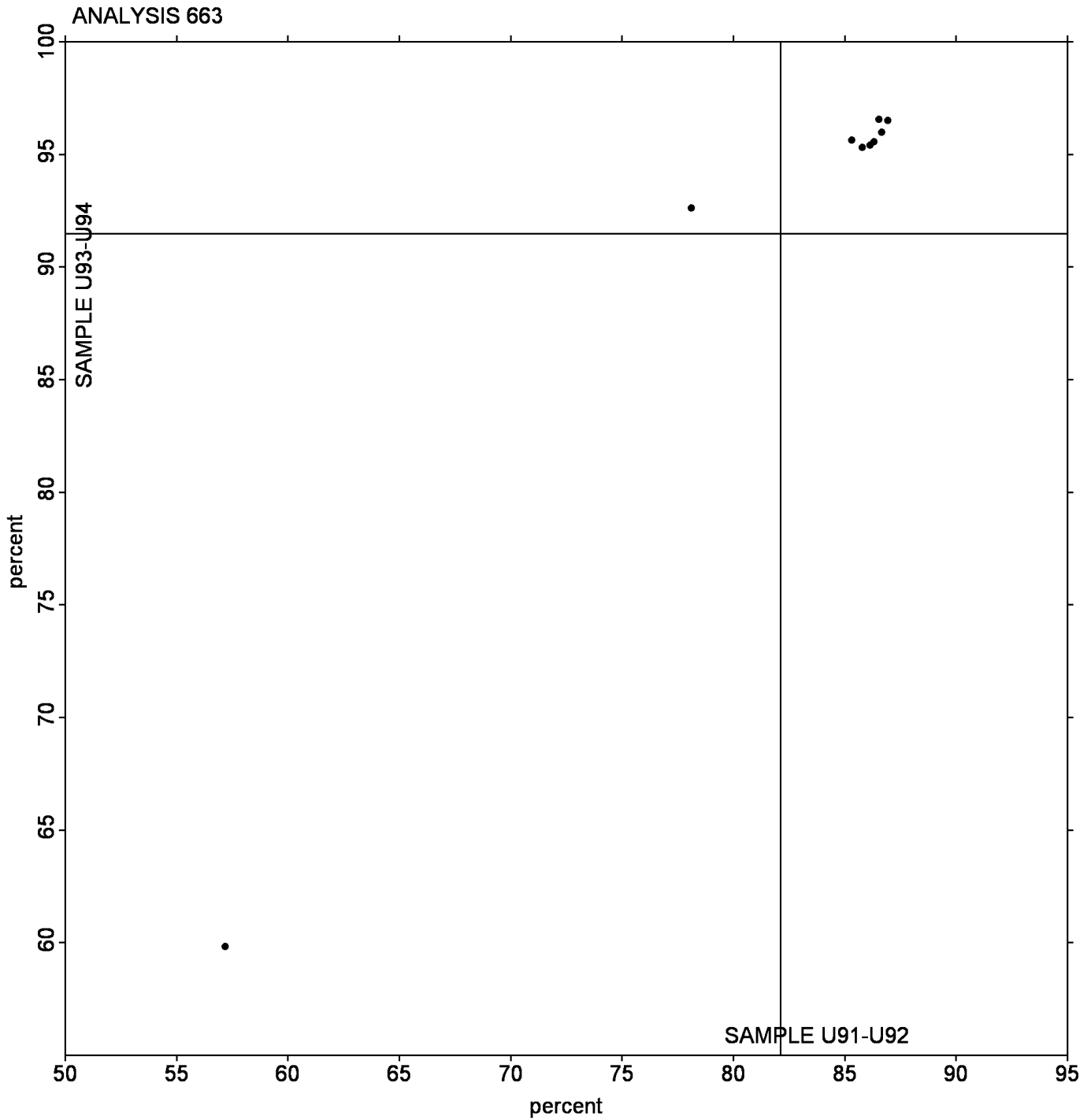
Samples U91-U92: SBR & U93-U94: Butyl

Analysis 663

Mooney Stress Relaxation: X30 (percent)

Grand Mean Sample U91-U92 = 82.112 percent

Grand Mean Sample U93-U94 = 91.485 percent



Analysis 664

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

| WebCode | Data Flag | Sample U91-U92 | | | Sample U93-U94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 5UKCK9 | | 699.9 | -172.2 | -0.46 | 256.9 | -1.5 | -0.05 | MR |
| 6HTYGK | | 672.0 | -200.1 | -0.54 | 203.6 | -54.8 | -1.76 | XX |
| BQLCHT | | 1,048.9 | 176.8 | 0.48 | 271.8 | 13.3 | 0.43 | MR |
| GV3T9S | | 591.3 | -280.8 | -0.75 | 311.1 | 52.7 | 1.69 | TV |
| KCA2WV | | 723.3 | -148.7 | -0.40 | 260.3 | 1.9 | 0.06 | MR |
| NEFQHB | | 740.8 | -131.3 | -0.35 | 276.6 | 18.1 | 0.58 | XX |
| URPX6W | | 768.5 | -103.6 | -0.28 | 249.1 | -9.3 | -0.30 | MR |
| XNZ8TN | | 1,732.0 | 859.9 | 2.31 | 238.0 | -20.4 | -0.66 | XX |

Summary Statistics

Grand Means

872.07 M-s

258.42 M-s

Std Dev Btwn Labs

372.13 M-s

31.17 M-s

Statistics based on 8 of 8 reporting participants

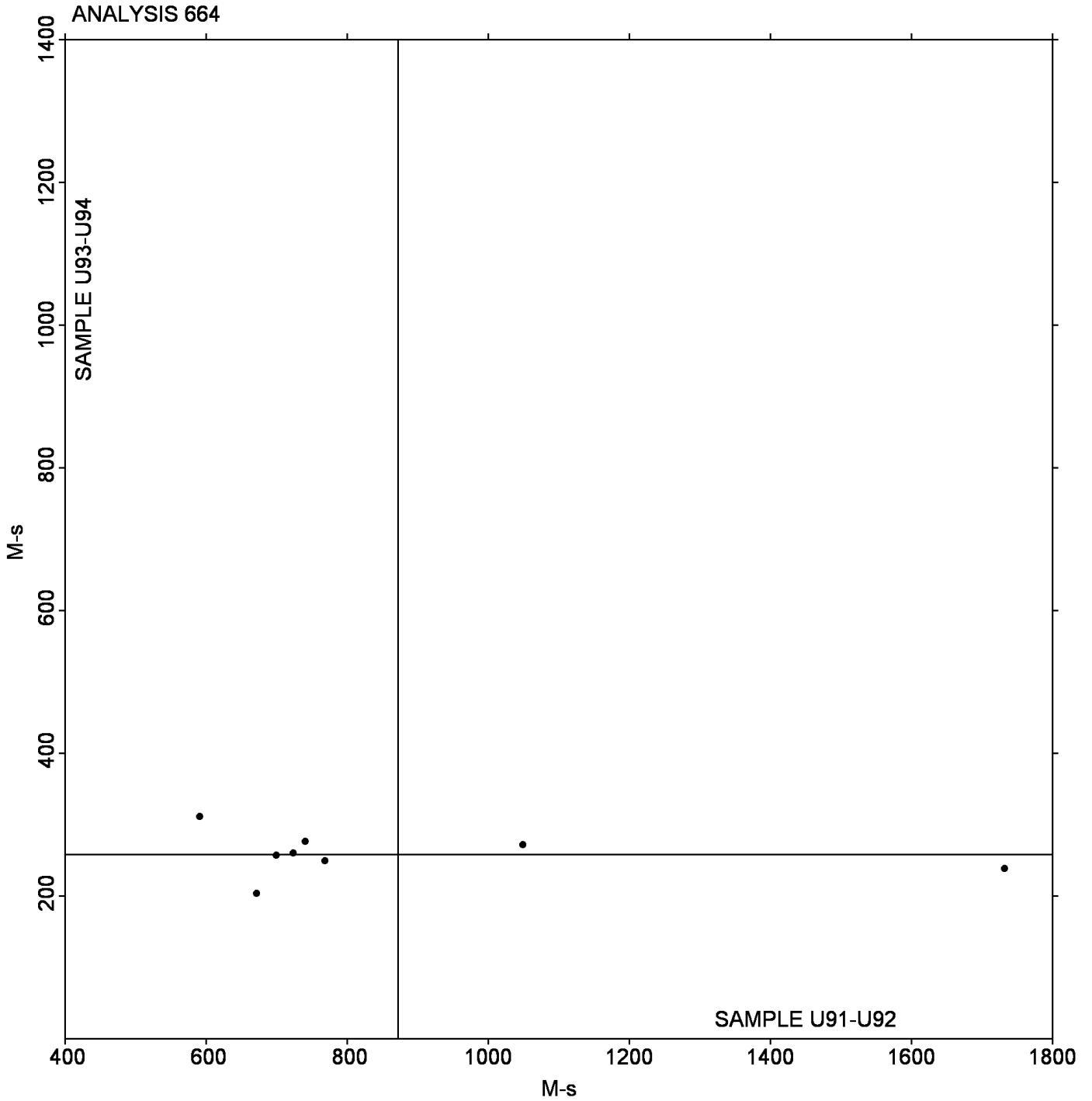
Samples U91-U92: SBR & U93-U94: Butyl

Analysis 664

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

Grand Mean Sample U91-U92 = 872.07 M-s

Grand Mean Sample U93-U94 = 258.42 M-s



Analysis 669

ODR Vulcanization-Cure Time 10% (minutes)

| WebCode | Data Flag | Sample Y91-Y92 | | | Sample Y93-Y94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 1FZ8JH | | 1.603 | -0.220 | -1.46 | 0.962 | -0.435 | -1.38 | ZZ |
| 26YLJ4 | | 1.715 | -0.109 | -0.72 | 1.540 | 0.143 | 0.46 | ZZ |
| 3UJE3P | | 1.788 | -0.035 | -0.23 | 1.123 | -0.273 | -0.87 | ZZ |
| 7NASY9 | | 1.738 | -0.085 | -0.57 | 1.138 | -0.258 | -0.82 | ZZ |
| 9ZPXJ9 | | 1.758 | -0.065 | -0.43 | 1.410 | 0.013 | 0.04 | ZZ |
| A5F3MW | * | 2.172 | 0.348 | 2.31 | 0.785 | -0.612 | -1.95 | ZZ |
| A8EEHW | | 1.522 | -0.302 | -2.00 | 1.367 | -0.030 | -0.10 | ZZ |
| CTZMFB | | 1.835 | 0.011 | 0.08 | 1.628 | 0.232 | 0.74 | ZZ |
| EHDNV5 | | 1.892 | 0.068 | 0.45 | 1.725 | 0.328 | 1.05 | ZZ |
| FTVRTF | | 1.690 | -0.134 | -0.89 | 1.435 | 0.038 | 0.12 | ZZ |
| GS3GDS | | 1.847 | 0.023 | 0.15 | 1.725 | 0.328 | 1.05 | ZZ |
| HJ88P1 | | 2.048 | 0.225 | 1.49 | 1.668 | 0.272 | 0.87 | ZZ |
| MZD6J6 | | 1.948 | 0.125 | 0.83 | 0.863 | -0.533 | -1.70 | ZZ |
| RXHC56 | | 1.802 | -0.022 | -0.14 | 1.408 | 0.012 | 0.04 | ZZ |
| UUVZQ8 | | 1.860 | 0.036 | 0.24 | 1.580 | 0.183 | 0.58 | ZZ |
| W76KKJ | | 1.843 | 0.020 | 0.13 | 1.263 | -0.133 | -0.42 | ZZ |
| XGLX3M | | 1.842 | 0.018 | 0.12 | 1.693 | 0.297 | 0.94 | ZZ |
| YAE2XX | | 1.920 | 0.096 | 0.64 | 1.823 | 0.427 | 1.36 | ZZ |

Summary Statistics

Grand Means

1.8235 minutes

1.3966 minutes

Std Dev Btwn Labs

0.1508 minutes

0.3141 minutes

Statistics based on 18 of 18 reporting participants

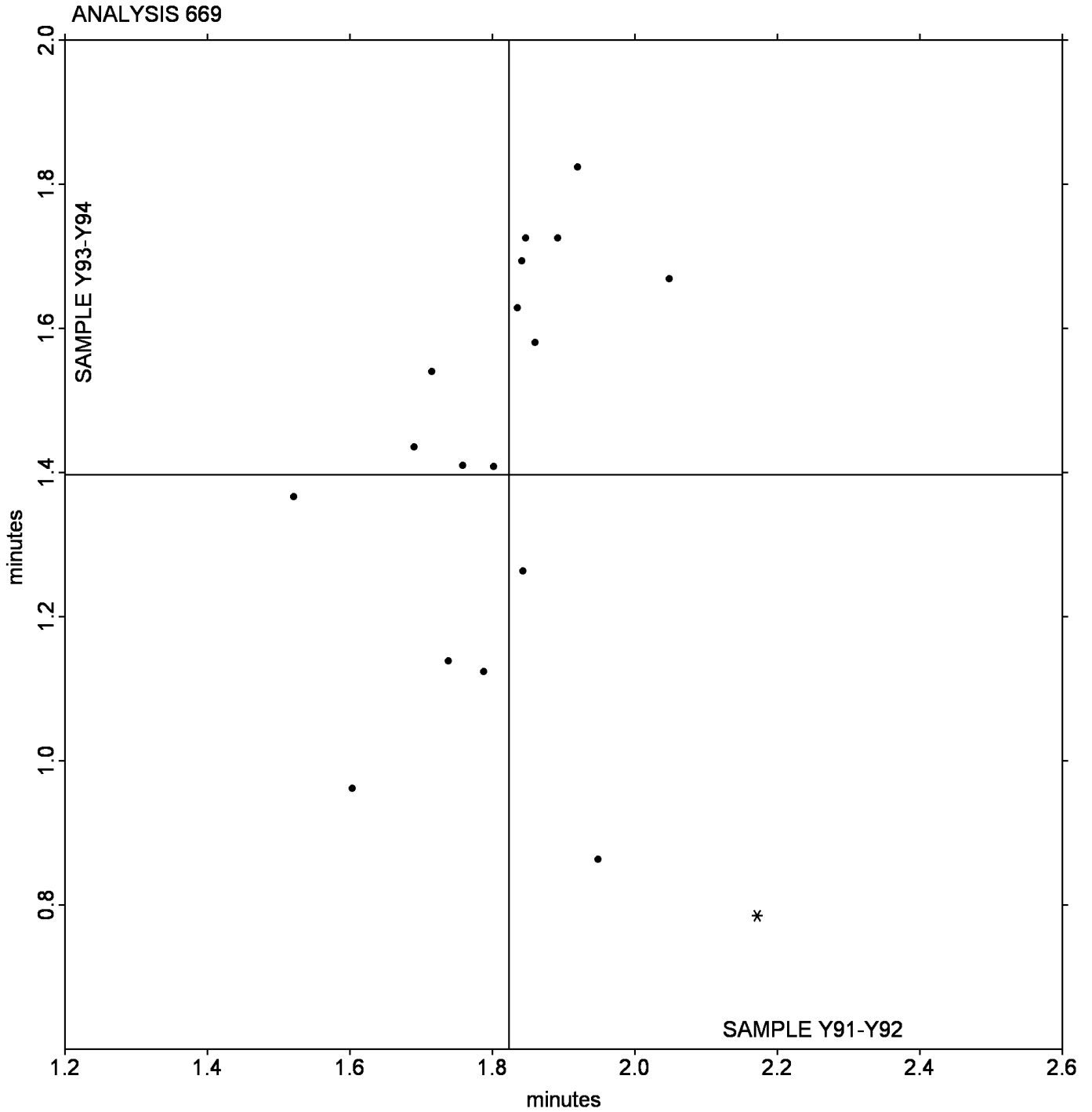
Samples Y91-Y92: EPDM compound #1 & Y93-Y94: EPDM compound #2

Analysis 669

ODR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample Y91-Y92 = 1.8235 minutes

Grand Mean Sample Y93-Y94 = 1.3966 minutes



Analysis 670

ODR Vulcanization-Scorch Time, Ts1 (minutes)

| WebCode | Data Flag | Sample Y91-Y92 | | | Sample Y93-Y94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 23Z9N4 | | 1.303 | -0.069 | -0.58 | 1.363 | 0.140 | 0.34 | ZZ |
| 8FS9WF | | 1.377 | 0.004 | 0.03 | 1.632 | 0.409 | 1.00 | ZZ |
| A5NTGL | | 1.455 | 0.082 | 0.69 | 1.652 | 0.429 | 1.04 | ZZ |
| AEJ5YG | | 1.300 | -0.073 | -0.61 | 0.695 | -0.528 | -1.29 | ZZ |
| AZL6X6 | | 1.088 | -0.284 | -2.38 | 1.207 | -0.016 | -0.04 | ZZ |
| CDV5VX | | 1.452 | 0.079 | 0.66 | 1.622 | 0.399 | 0.97 | ZZ |
| EUFC1S | | 1.392 | 0.019 | 0.16 | 1.282 | 0.059 | 0.14 | ZZ |
| F4SUK3 | | 1.572 | 0.199 | 1.67 | 1.575 | 0.352 | 0.86 | ZZ |
| GJMHP1 | | 1.203 | -0.169 | -1.42 | 0.197 | -1.026 | -2.50 | ZZ |
| GQEDW | | 1.353 | -0.019 | -0.16 | 0.850 | -0.373 | -0.91 | ZZ |
| GSNLEK | | 1.428 | 0.056 | 0.47 | 1.443 | 0.220 | 0.54 | ZZ |
| K5MEDY | | 1.533 | 0.161 | 1.35 | 1.433 | 0.210 | 0.51 | ZZ |
| MU362V | | 1.320 | -0.053 | -0.44 | 1.250 | 0.027 | 0.07 | ZZ |
| PLSD85 | | 1.507 | 0.134 | 1.12 | 0.497 | -0.726 | -1.77 | ZZ |
| QNVZPV | | 1.298 | -0.074 | -0.62 | 1.578 | 0.355 | 0.87 | ZZ |
| XWHX68 | | 1.305 | -0.068 | -0.57 | 1.182 | -0.041 | -0.10 | ZZ |
| Y6F9NU | | 1.367 | -0.006 | -0.05 | 1.503 | 0.280 | 0.68 | ZZ |
| YYDSM | | 1.513 | 0.141 | 1.18 | 1.318 | 0.095 | 0.23 | ZZ |
| ZQ45JE | | 1.313 | -0.059 | -0.50 | 0.957 | -0.266 | -0.65 | ZZ |

Summary Statistics

Grand Means

1.3726 minutes

1.2229 minutes

Std Dev Btwn Labs

0.1193 minutes

0.4107 minutes

Statistics based on 19 of 19 reporting participants

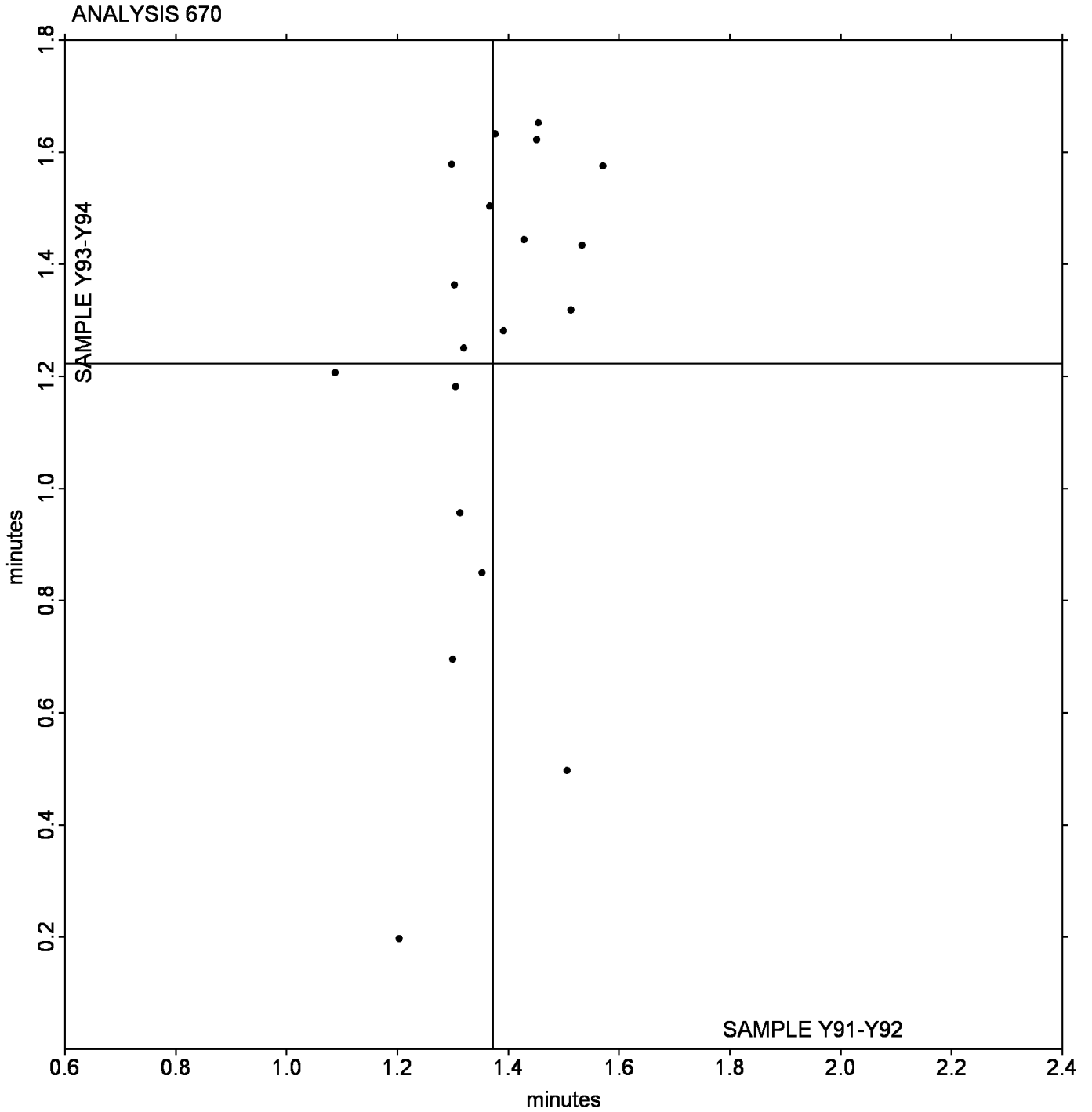
Samples Y91-Y92: EPDM compound #1 & Y93-Y94: EPDM compound #2

Analysis 670

ODR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample Y91-Y92 = 1.3726 minutes

Grand Mean Sample Y93-Y94 = 1.2229 minutes



Analysis 671

ODR Vulcanization-Cure Time 50% (minutes)

| WebCode | Data Flag | Sample Y91-Y92 | | | Sample Y93-Y94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 2Y4FQ3 | | 3.260 | -0.074 | -0.36 | 2.770 | -0.094 | -0.34 | ZZ |
| 5GHP31 | | 3.133 | -0.200 | -0.97 | 3.000 | 0.136 | 0.49 | ZZ |
| 5L1954 | | 3.422 | 0.088 | 0.43 | 2.943 | 0.079 | 0.28 | ZZ |
| 5QLLA6 | | 3.358 | 0.025 | 0.12 | 2.765 | -0.099 | -0.35 | ZZ |
| CG5JP3 | | 2.935 | -0.399 | -1.93 | 2.722 | -0.142 | -0.51 | ZZ |
| K8CZVV | | 3.143 | -0.190 | -0.92 | 2.475 | -0.389 | -1.39 | ZZ |
| MQ3V5V | | 3.252 | -0.082 | -0.40 | 2.715 | -0.149 | -0.53 | ZZ |
| MZX4M6 | | 3.345 | 0.011 | 0.05 | 3.125 | 0.261 | 0.93 | ZZ |
| NGP2XS | | 3.727 | 0.393 | 1.90 | 2.812 | -0.052 | -0.19 | ZZ |
| P4M9LT | | 3.005 | -0.329 | -1.59 | 2.430 | -0.434 | -1.55 | ZZ |
| PY4N92 | | 3.477 | 0.143 | 0.69 | 2.628 | -0.236 | -0.84 | ZZ |
| QUIVAF | | 3.228 | -0.105 | -0.51 | 2.468 | -0.396 | -1.42 | ZZ |
| S3GUSR | | 3.257 | -0.077 | -0.37 | 3.103 | 0.239 | 0.86 | ZZ |
| V2ZLLN | | 3.422 | 0.088 | 0.43 | 2.708 | -0.156 | -0.56 | ZZ |
| V4CCTW | | 3.660 | 0.326 | 1.58 | 3.302 | 0.438 | 1.57 | ZZ |
| WD7DJY | | 3.495 | 0.161 | 0.78 | 3.083 | 0.219 | 0.78 | ZZ |
| X8VQLN | | 3.185 | -0.149 | -0.72 | 3.168 | 0.304 | 1.09 | ZZ |
| XT2LAS | | 3.392 | 0.058 | 0.28 | 2.722 | -0.142 | -0.51 | ZZ |
| ZKGDFS | | 3.632 | 0.298 | 1.44 | 2.892 | 0.028 | 0.10 | ZZ |
| ZMXD7 | | 3.348 | 0.015 | 0.07 | 3.448 | 0.584 | 2.09 | ZZ |

Summary Statistics

Grand Means

3.3338 minutes

2.8640 minutes

Std Dev Btwn Labs

0.2066 minutes

0.2795 minutes

Statistics based on 20 of 20 reporting participants

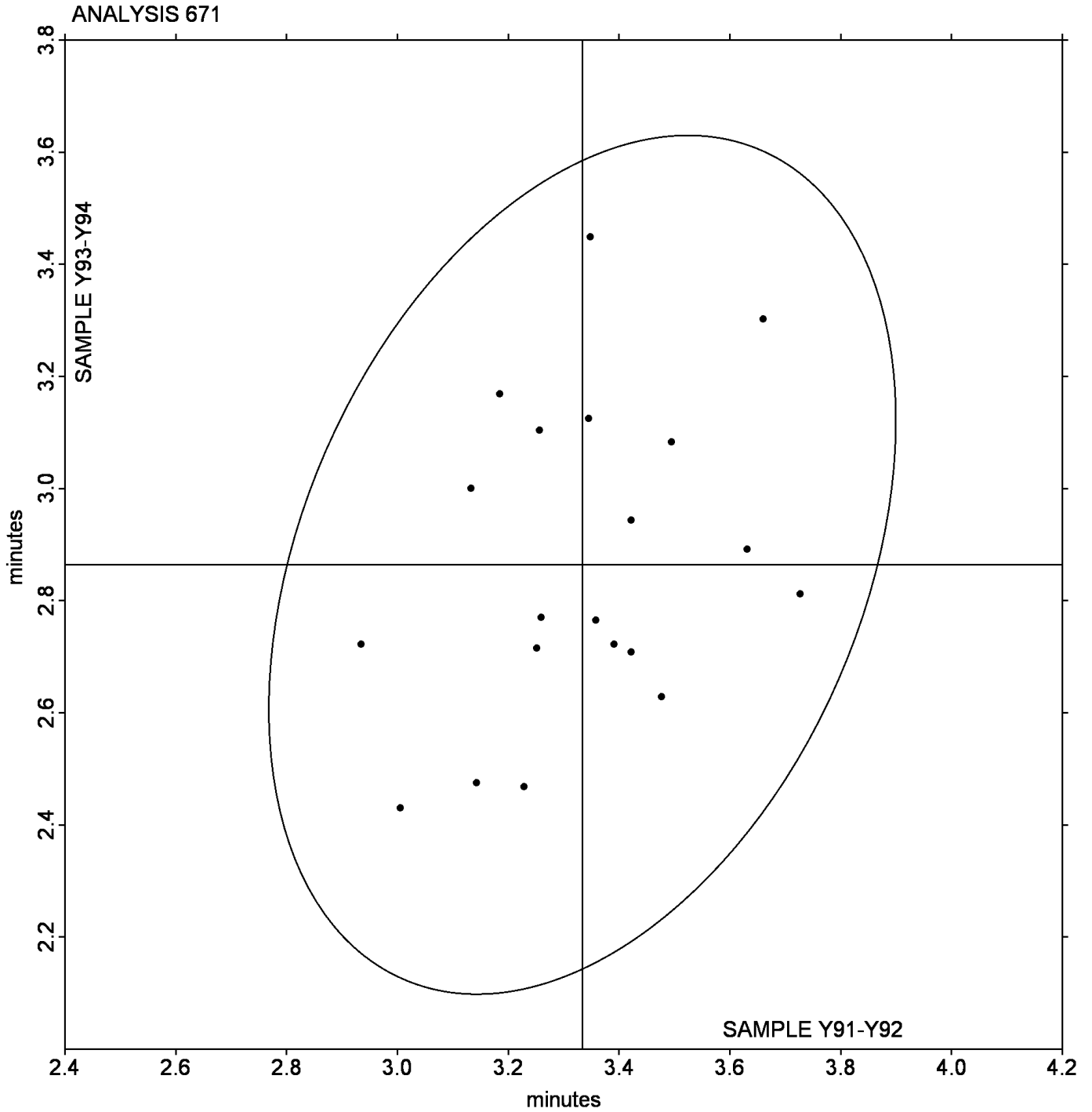
Samples Y91-Y92: EPDM compound #1 & Y93-Y94: EPDM compound #2

Analysis 671

ODR Vulcanization-Cure Time 50% (minutes)

Grand Mean Sample Y91-Y92 = 3.3338 minutes

Grand Mean Sample Y93-Y94 = 2.8640 minutes



Analysis 672

ODR Vulcanization-Cure Time 90% (minutes)

| WebCode | Data Flag | Sample Y91-Y92 | | | Sample Y93-Y94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 1BY91C | * | 8.69 | -2.51 | -2.62 | 6.275 | -3.113 | -1.50 | ZZ |
| 1TPVH4 | | 10.59 | -0.61 | -0.64 | 6.620 | -2.768 | -1.34 | ZZ |
| 2D9WAG | | 10.14 | -1.06 | -1.10 | 10.850 | 1.462 | 0.71 | ZZ |
| 5D2B6K | | 12.37 | 1.17 | 1.22 | 7.593 | -1.795 | -0.87 | ZZ |
| 6AZSY4 | | 10.65 | -0.55 | -0.58 | 6.660 | -2.728 | -1.32 | ZZ |
| 8UKDQ5 | | 11.20 | 0.00 | 0.00 | 13.130 | 3.742 | 1.81 | ZZ |
| 9MWVT | | 11.14 | -0.06 | -0.06 | 12.082 | 2.693 | 1.30 | ZZ |
| GQMY12 | | 11.96 | 0.76 | 0.79 | 9.762 | 0.373 | 0.18 | ZZ |
| JAGY84 | | 10.07 | -1.13 | -1.17 | 13.002 | 3.613 | 1.74 | ZZ |
| KKVBR6 | | 10.67 | -0.53 | -0.55 | 7.302 | -2.087 | -1.01 | ZZ |
| L5PS56 | | 11.27 | 0.06 | 0.07 | 10.333 | 0.945 | 0.46 | ZZ |
| LRHF37 | | 11.72 | 0.52 | 0.55 | 11.555 | 2.167 | 1.05 | ZZ |
| ML9XF5 | | 11.01 | -0.19 | -0.20 | 9.908 | 0.520 | 0.25 | ZZ |
| MV2R38 | | 11.04 | -0.16 | -0.17 | 9.147 | -0.242 | -0.12 | ZZ |
| N9KU7K | | 12.35 | 1.15 | 1.20 | 9.517 | 0.128 | 0.06 | ZZ |
| QWW2E | | 10.80 | -0.41 | -0.42 | 8.940 | -0.448 | -0.22 | ZZ |
| RNS83S | | 12.37 | 1.17 | 1.22 | 9.505 | 0.117 | 0.06 | ZZ |
| T91DJX | | 11.32 | 0.12 | 0.12 | 6.953 | -2.435 | -1.18 | ZZ |
| YGQGZF | | 12.06 | 0.86 | 0.90 | 8.823 | -0.565 | -0.27 | ZZ |
| YMTT9T | | 12.59 | 1.39 | 1.45 | 9.810 | 0.422 | 0.20 | ZZ |

| Summary Statistics | |
|---|----------------|
| Grand Means | 11.200 minutes |
| | 9.3883 minutes |
| Std Dev Btwn Labs | 0.959 minutes |
| | 2.0716 minutes |
| Statistics based on 20 of 20 reporting participants | |

Samples Y91-Y92: EPDM compound #1 & Y93-Y94: EPDM compound #2

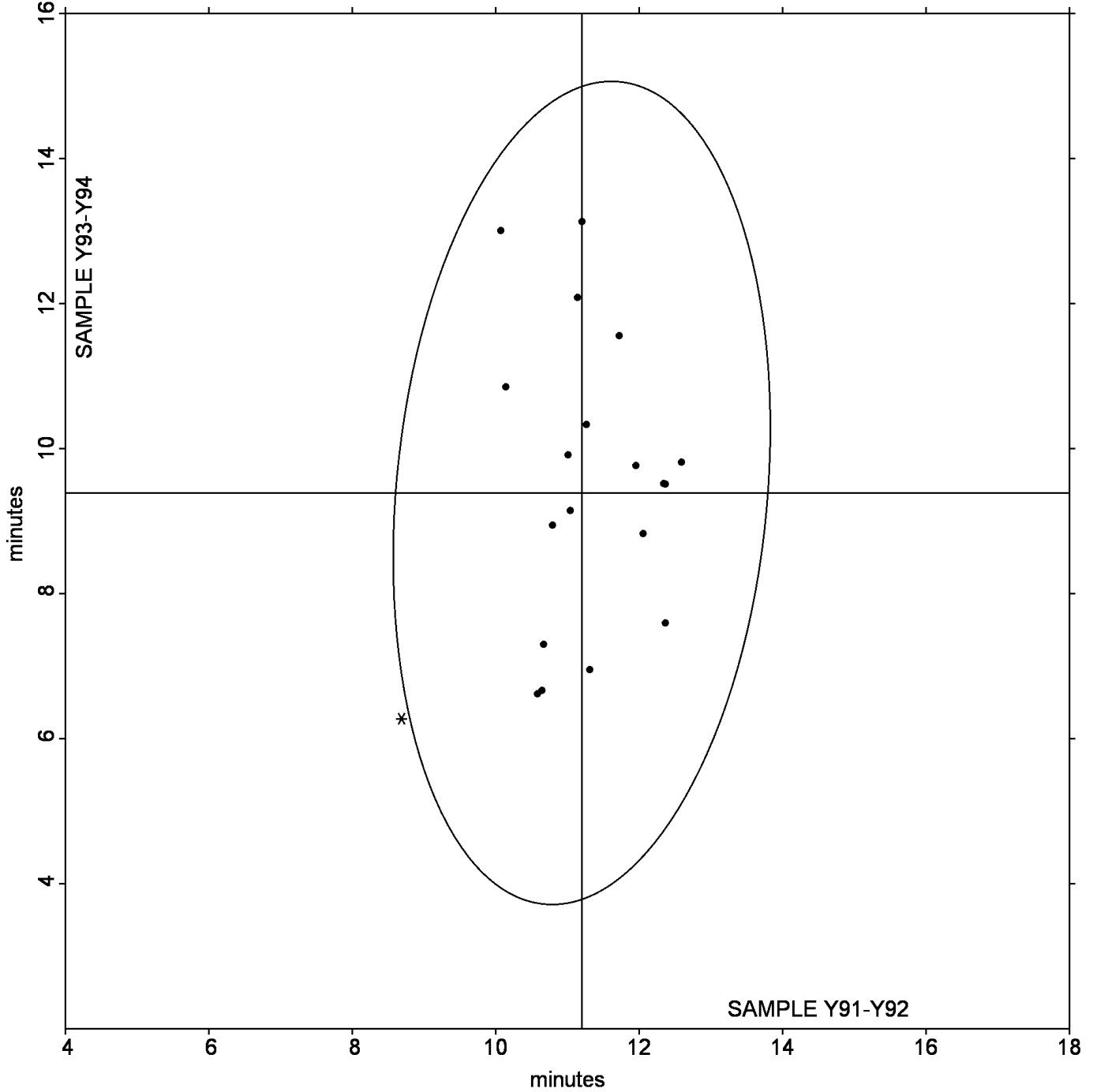
Analysis 672

ODR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample Y91-Y92 = 11.200 minutes

Grand Mean Sample Y93-Y94 = 9.3883 minutes

ANALYSIS 672



Analysis 673

ODR Vulcanization: Minimum Torque (lbf.in)

| WebCode | Data Flag | Sample Y91-Y92 | | | Sample Y93-Y94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 2G49UE | | 7.162 | -0.085 | -0.06 | 27.09 | 2.92 | 0.47 | ZZ |
| 59NJ9Z | | 8.043 | 0.797 | 0.60 | 24.57 | 0.39 | 0.06 | ZZ |
| 8VHGL2 | | 6.632 | -0.615 | -0.46 | 19.81 | -4.37 | -0.71 | ZZ |
| 9J2J5G | | 6.728 | -0.518 | -0.39 | 21.06 | -3.11 | -0.50 | ZZ |
| A74EL3 | | 5.915 | -1.331 | -1.00 | 19.70 | -4.47 | -0.73 | ZZ |
| BS1E1C | | 6.800 | -0.446 | -0.34 | 22.47 | -1.70 | -0.28 | ZZ |
| CUU42Q | | 5.877 | -1.370 | -1.03 | 19.20 | -4.97 | -0.81 | ZZ |
| FR3VT1 | | 7.683 | 0.437 | 0.33 | 23.75 | -0.43 | -0.07 | ZZ |
| HB5BGV | | 5.255 | -1.991 | -1.50 | 12.65 | -11.53 | -1.87 | ZZ |
| HUY9L8 | | 9.922 | 2.675 | 2.01 | 36.82 | 12.64 | 2.05 | ZZ |
| KP58WM | | 6.805 | -0.441 | -0.33 | 23.61 | -0.56 | -0.09 | ZZ |
| KSYCV6 | | 9.750 | 2.504 | 1.88 | 38.22 | 14.05 | 2.28 | ZZ |
| KWV5X2 | | 7.425 | 0.179 | 0.13 | 31.46 | 7.28 | 1.18 | ZZ |
| PVT112 | | 6.873 | -0.373 | -0.28 | 20.96 | -3.21 | -0.52 | ZZ |
| RFVZRD | | 6.453 | -0.793 | -0.60 | 20.20 | -3.98 | -0.64 | ZZ |
| T9TW6L | | 8.033 | 0.787 | 0.59 | 25.48 | 1.31 | 0.21 | ZZ |
| XZ1KSM | | 6.503 | -0.743 | -0.56 | 26.12 | 1.94 | 0.31 | ZZ |
| XZXJPU | | 7.157 | -0.090 | -0.07 | 24.63 | 0.46 | 0.07 | ZZ |
| YMAMA | * | 9.907 | 2.660 | 2.00 | 28.26 | 4.08 | 0.66 | ZZ |
| Z497BP | | 6.000 | -1.246 | -0.94 | 17.44 | -6.74 | -1.09 | ZZ |

| Summary Statistics | |
|---|---------------|
| Grand Means | |
| 7.2462 lbf.in | 24.174 lbf.in |
| Std Dev Btwn Labs | |
| 1.3283 lbf.in | 6.167 lbf.in |
| Statistics based on 20 of 20 reporting participants | |

| Summary Statistics in SI Units | |
|---|-------------|
| Grand Means | |
| 8.1871 dN.m | 27.313 dN.m |
| Std Dev Btwn Labs | |
| 1.5008 dN.m | 6.968 dN.m |
| Statistics based on 20 of 20 reporting participants | |

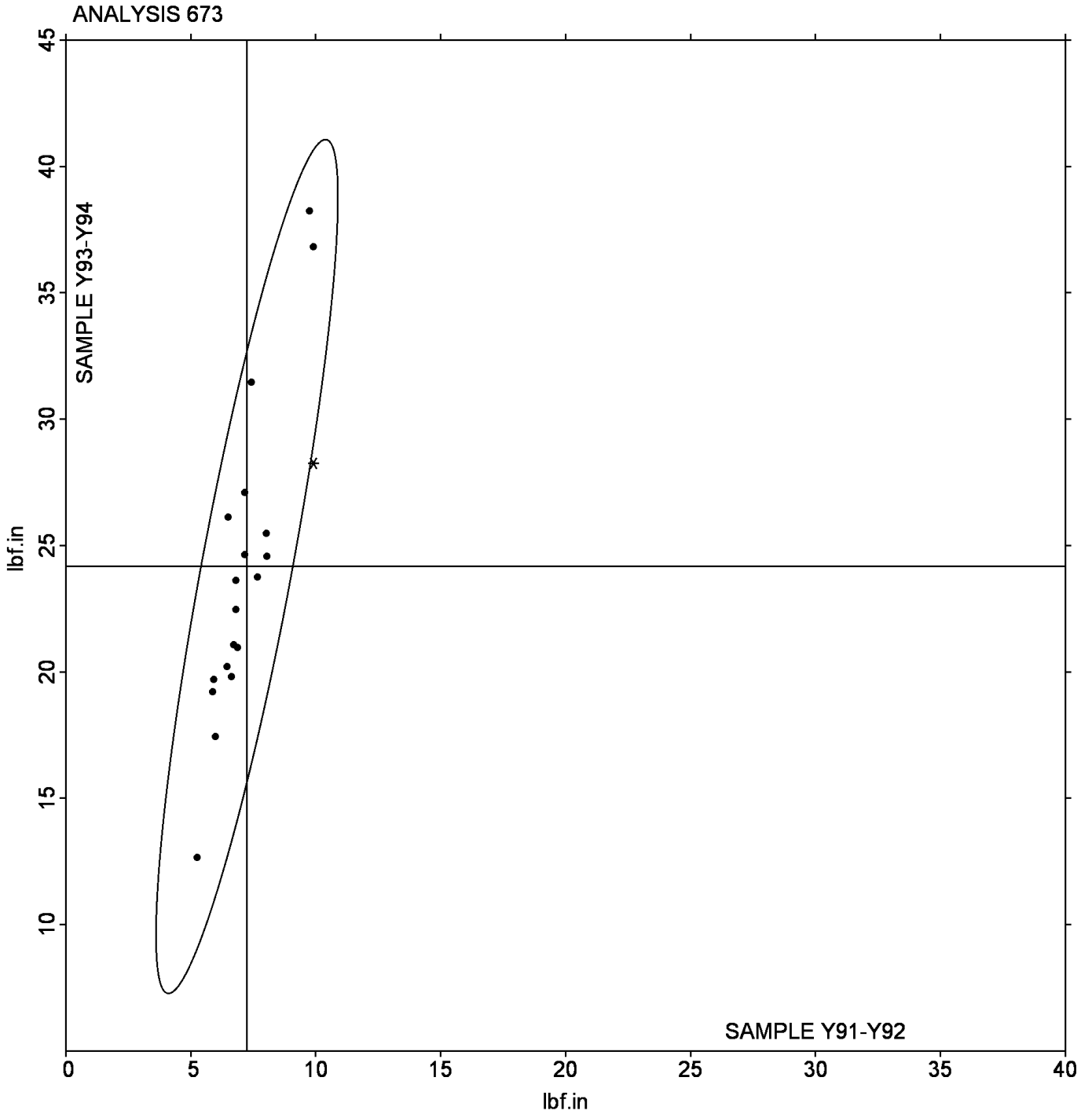
Samples Y91-Y92: EPDM compound #1 & Y93-Y94: EPDM compound #2

Analysis 673

ODR Vulcanization: Minimum Torque (lbf.in)

Grand Mean Sample Y91-Y92 = 7.2462 lbf.in

Grand Mean Sample Y93-Y94 = 24.174 lbf.in



Analysis 674

ODR Vulcanization: Maximum Torque (lbf.in)

| WebCode | Data Flag | Sample Y91-Y92 | | | Sample Y93-Y94 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 2HHUMQ | | 39.33 | 0.56 | 0.20 | 56.75 | 15.01 | 2.08 | ZZ |
| 5KXAKM | | 43.94 | 5.17 | 1.85 | 42.58 | 0.85 | 0.12 | ZZ |
| 7XUWF2 | | 36.14 | -2.63 | -0.94 | 34.81 | -6.92 | -0.96 | ZZ |
| BB7N5Q | | 40.35 | 1.58 | 0.57 | 48.40 | 6.66 | 0.93 | ZZ |
| C2D4V9 | | 33.90 | -4.87 | -1.74 | 28.31 | -13.43 | -1.86 | ZZ |
| EE7BRP | | 38.15 | -0.62 | -0.22 | 37.26 | -4.47 | -0.62 | ZZ |
| FT1CG2 | | 40.16 | 1.39 | 0.50 | 43.34 | 1.61 | 0.22 | ZZ |
| G3Y5A8 | | 39.33 | 0.56 | 0.20 | 41.35 | -0.39 | -0.05 | ZZ |
| L1C46V | | 39.07 | 0.30 | 0.11 | 43.79 | 2.05 | 0.29 | ZZ |
| N2NBZF | | 37.00 | -1.77 | -0.63 | 40.31 | -1.43 | -0.20 | ZZ |
| QGBWJD | | 35.56 | -3.21 | -1.15 | 34.99 | -6.75 | -0.94 | ZZ |
| REGQHF | | 35.47 | -3.30 | -1.18 | 37.60 | -4.13 | -0.57 | ZZ |
| T1YRCK | | 43.45 | 4.68 | 1.68 | 43.34 | 1.61 | 0.22 | ZZ |
| T7L47X | | 37.50 | -1.27 | -0.45 | 37.20 | -4.53 | -0.63 | ZZ |
| TF1WMN | | 36.01 | -2.76 | -0.99 | 39.40 | -2.34 | -0.32 | ZZ |
| VFKZ2T | | 39.78 | 1.01 | 0.36 | 45.26 | 3.52 | 0.49 | ZZ |
| VR2VTT | | 38.81 | 0.04 | 0.01 | 37.63 | -4.10 | -0.57 | ZZ |
| WVJ55Q | | 39.17 | 0.40 | 0.14 | 48.81 | 7.07 | 0.98 | ZZ |
| XGWDP | | 44.07 | 5.30 | 1.90 | 57.65 | 15.92 | 2.21 | ZZ |
| Y124LN | | 38.19 | -0.58 | -0.21 | 35.94 | -5.80 | -0.81 | ZZ |

Summary Statistics

Grand Means

38.768 lbf.in

41.736 lbf.in

Std Dev Btwn Labs

2.790 lbf.in

7.200 lbf.in

Statistics based on 20 of 20 reporting participants

Summary Statistics in SI Units

Grand Means

43.802 dN.m

47.155 dN.m

Std Dev Btwn Labs

3.153 dN.m

8.135 dN.m

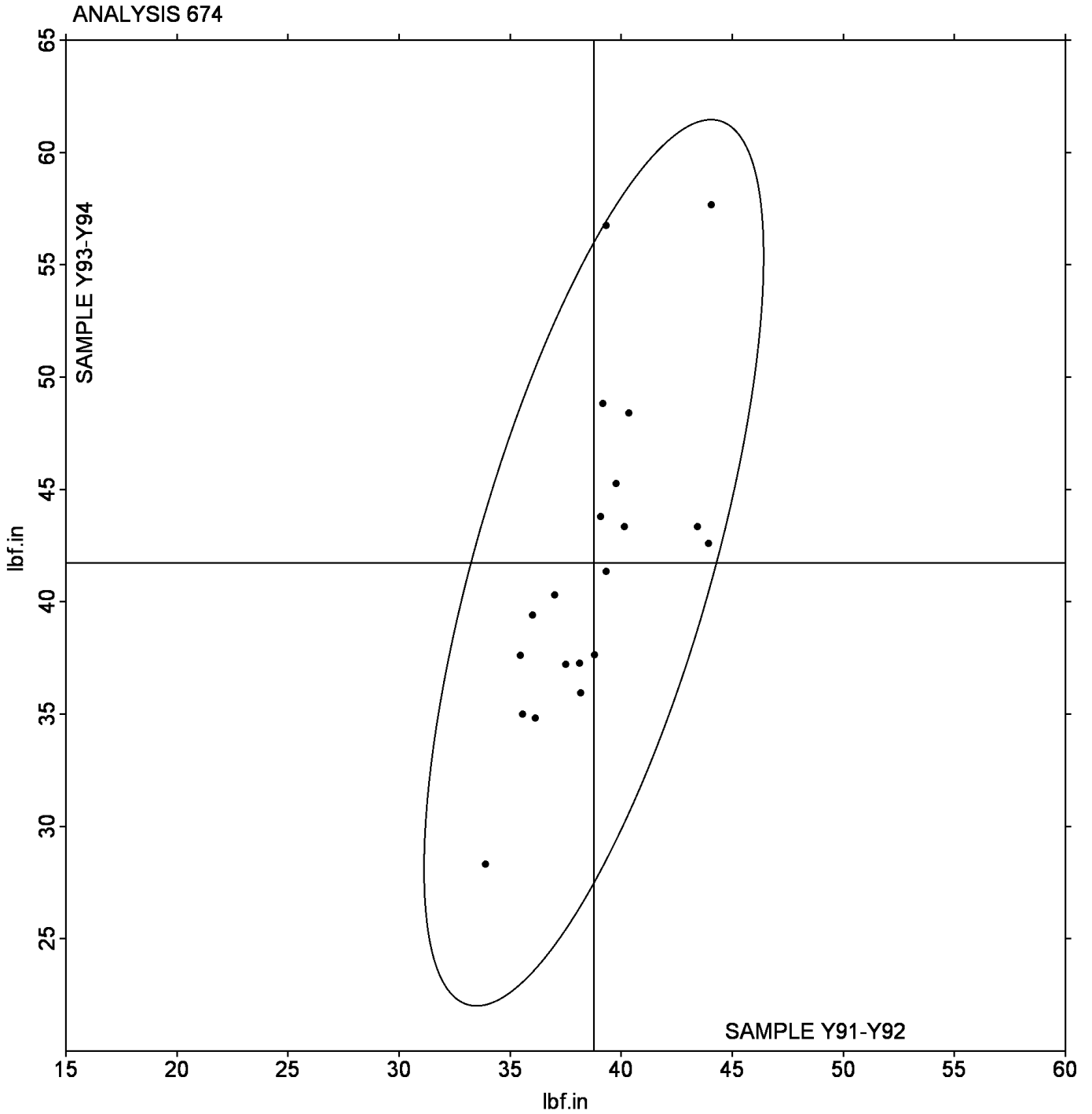
Statistics based on 20 of 20 reporting participants

Analysis 674

ODR Vulcanization: Maximum Torque (lbf.in)

Grand Mean Sample Y91-Y92 = 38.768 lbf.in

Grand Mean Sample Y93-Y94 = 41.736 lbf.in



Rubber Interlaboratory Testing Program

Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

| WebCode | Data Flag | Sample Y95-Y96 | | | Sample Y97-Y98 | | | Instr Code |
|---------|-----------|----------------|----------------------|--------|----------------|----------------------|--------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 1NPNQ3 | | 0.8611 | 0.1065 | 0.93 | 0.8722 | 0.1198 | 1.08 | MC |
| 1RHQBP | | 0.7533 | -0.0013 | -0.01 | 0.6983 | -0.0541 | -0.49 | MC |
| 2CRFR3 | | 0.7650 | 0.0104 | 0.09 | 0.7933 | 0.0409 | 0.37 | MC |
| 34YDBD | | 0.7517 | -0.0030 | -0.03 | 0.7667 | 0.0143 | 0.13 | MC |
| 44W2BN | | 0.7300 | -0.0246 | -0.21 | 0.7500 | -0.0024 | -0.02 | MD |
| 4J3ZNT | | 0.6367 | -0.1180 | -1.03 | 0.6450 | -0.1074 | -0.97 | MD |
| 82BNVF | | 0.8417 | 0.0870 | 0.76 | 0.8600 | 0.1076 | 0.97 | MC |
| 8C426S | | 0.6883 | -0.0663 | -0.58 | 0.7200 | -0.0324 | -0.29 | MD |
| 952LHK | | 0.6867 | -0.0680 | -0.59 | 0.7083 | -0.0441 | -0.40 | MC |
| 9EW1L2 | | 0.7750 | 0.0204 | 0.18 | 0.7733 | 0.0209 | 0.19 | MC |
| A5YWGE | | 0.9433 | 0.1887 | 1.64 | 0.9400 | 0.1876 | 1.69 | XX |
| E3K2JB | | 0.7467 | -0.0080 | -0.07 | 0.7583 | 0.0059 | 0.05 | MC |
| F86DVJ | * | 0.4250 | -0.3296 | -2.87 | 0.4983 | -0.2541 | -2.29 | MC |
| FCG4TS | | 0.7450 | -0.0096 | -0.08 | 0.7083 | -0.0441 | -0.40 | MC |
| FKE2TU | * | 0.6817 | -0.0730 | -0.64 | 0.6000 | -0.1524 | -1.38 | MC |
| GVYDW | | 0.8417 | 0.0870 | 0.76 | 0.8267 | 0.0743 | 0.67 | XX |
| HGQDFL | X | 15.0000 | 14.2454 | 124.03 | 15.0000 | 14.2476 | 128.62 | TP |
| J9Y3BA | | 0.8300 | 0.0754 | 0.66 | 0.8200 | 0.0676 | 0.61 | TP |
| KMY9NS | | 0.8533 | 0.0987 | 0.86 | 0.8517 | 0.0993 | 0.90 | MC |
| NMBVW | | 0.8400 | 0.0854 | 0.74 | 0.8200 | 0.0676 | 0.61 | MC |
| NTDTT4 | | 0.7967 | 0.0420 | 0.37 | 0.8417 | 0.0893 | 0.81 | MC |
| PAAUP8 | | 0.7350 | -0.0196 | -0.17 | 0.7383 | -0.0141 | -0.13 | TP |
| Q25HQP | | 0.8217 | 0.0670 | 0.58 | 0.7867 | 0.0343 | 0.31 | MC |
| RPRFHR | | 0.7917 | 0.0371 | 0.32 | 0.8028 | 0.0504 | 0.45 | MC |
| UGH1CS | | 0.5983 | -0.1563 | -1.36 | 0.5667 | -0.1857 | -1.68 | MC |
| UGRGTK | | 0.4617 | -0.2930 | -2.55 | 0.4617 | -0.2907 | -2.62 | MC |
| W9PPV9 | X | 0.5800 | -0.1746 | -1.52 | 0.3750 | -0.3774 | -3.41 | MD |
| WBE48R | | 0.8233 | 0.0687 | 0.60 | 0.8150 | 0.0626 | 0.57 | MC |
| XCDANQ | X | 0.7683 | 0.0137 | 0.12 | 1.2367 | 0.4843 | 4.37 | XX |
| YPXE4L | | 0.8883 | 0.1337 | 1.16 | 0.8383 | 0.0859 | 0.78 | MD |
| Z6KYT5 | | 0.7433 | -0.0113 | -0.10 | 0.7300 | -0.0224 | -0.20 | TP |
| ZWZQB4 | | 0.8278 | 0.0732 | 0.64 | 0.8278 | 0.0754 | 0.68 | MC |

Rubber Interlaboratory Testing Program
Analysis 684
MDR Vulcanization-Cure Time 10% (minutes)

| | | Summary Statistics | |
|---|-----------------|--------------------|-----------------|
| Grand Means | 0.75462 minutes | | 0.75240 minutes |
| Std Dev Btwn Labs | 0.11486 minutes | | 0.11077 minutes |
| Statistics based on 29 of 32 reporting participants | | | |

Samples Y95-Y96: EPDM compound, batch #1 & Y97-Y98: EPDM compound, batch #2

Comments on assigned Data Flags for Test #684

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

W9PPV9 (X) - Data for Sample set Y97-Y98 are low. Also inconsistent in testing within Sample set Y95-Y96.

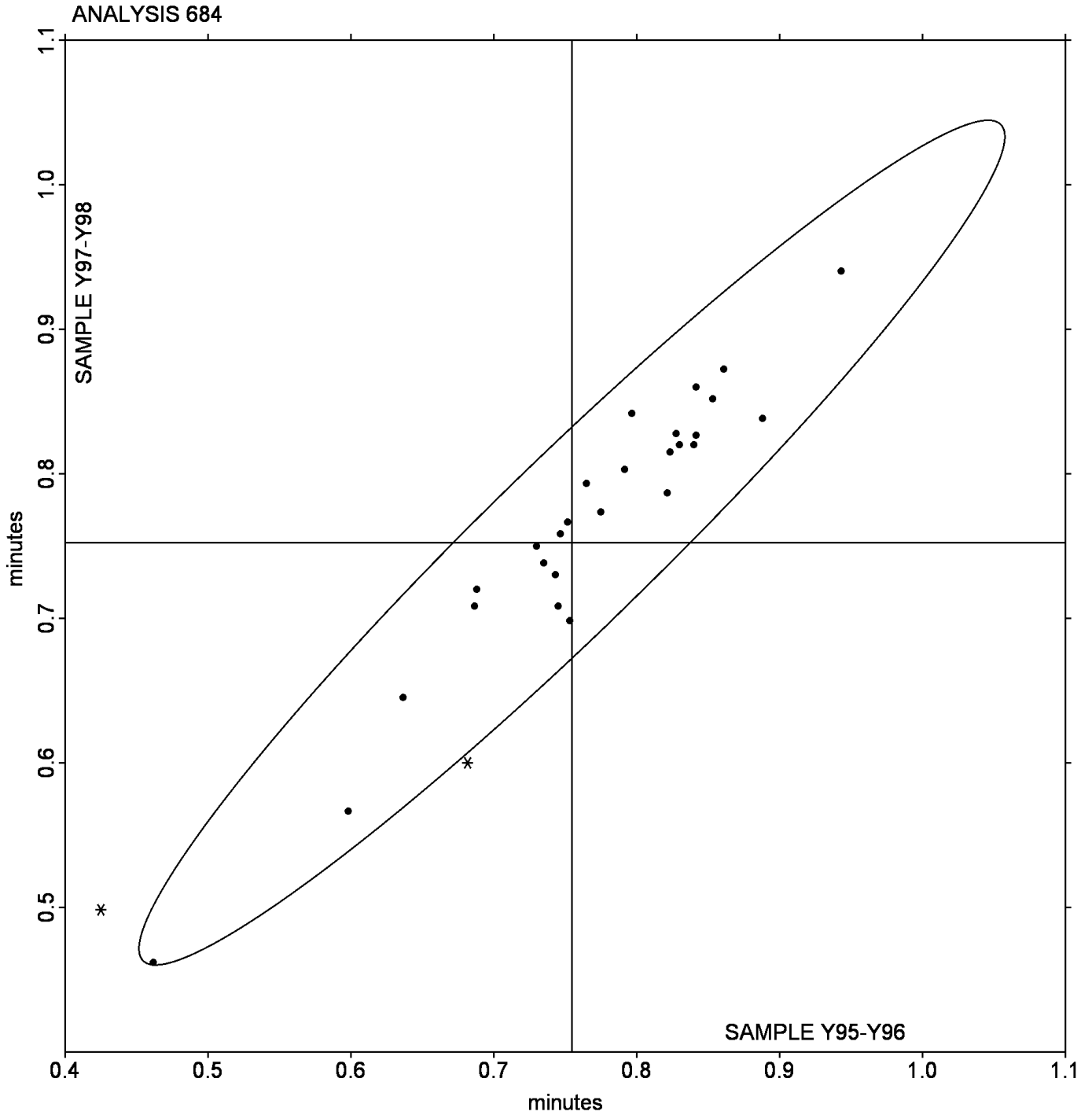
XCDANQ (X) - Data for Sample set Y97-Y98 are high.

Analysis 684

MDR Vulcanization-Cure Time 10% (minutes)

Grand Mean Sample Y95-Y96 = 0.75462 minutes

Grand Mean Sample Y97-Y98 = 0.75240 minutes



Rubber Interlaboratory Testing Program

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

| WebCode | Data Flag | Sample Y95-Y96 | | | Sample Y97-Y98 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 33BUNM | | 0.8267 | 0.0256 | 0.21 | 0.8867 | 0.0855 | 0.71 | MC |
| 3R72KL | | 0.7967 | -0.0044 | -0.04 | 0.8533 | 0.0521 | 0.43 | MD |
| 4BY5JZ | | 0.7567 | -0.0444 | -0.37 | 0.7483 | -0.0529 | -0.44 | TP |
| 4Q9YJX | | 0.7433 | -0.0577 | -0.48 | 0.7450 | -0.0562 | -0.47 | TP |
| 4QR5TL | | 0.8017 | 0.0006 | 0.01 | 0.8267 | 0.0255 | 0.21 | MC |
| 69GW5R | | 0.7717 | -0.0294 | -0.24 | 0.7767 | -0.0245 | -0.20 | TP |
| 6L9EMH | | 0.7167 | -0.0844 | -0.70 | 0.6617 | -0.1395 | -1.16 | MC |
| 7YBCZF | | 0.8717 | 0.0706 | 0.59 | 0.9283 | 0.1271 | 1.05 | MC |
| 8A43FD | | 0.8950 | 0.0939 | 0.78 | 0.8883 | 0.0871 | 0.72 | MC |
| APY585 | | 0.7767 | -0.0244 | -0.20 | 0.7933 | -0.0079 | -0.07 | MC |
| ASQBV2 | | 0.8917 | 0.0906 | 0.75 | 0.8834 | 0.0822 | 0.68 | MC |
| BETN46 | | 0.9700 | 0.1689 | 1.40 | 0.9200 | 0.1188 | 0.99 | MD |
| BK797B | | 0.9283 | 0.1273 | 1.06 | 0.9200 | 0.1188 | 0.99 | MC |
| BVNUVE | | 1.0667 | 0.2656 | 2.21 | 1.0617 | 0.2605 | 2.16 | XX |
| C9GZ6V | | 0.9200 | 0.1189 | 0.99 | 0.8900 | 0.0888 | 0.74 | MC |
| DD9ECG | | 0.8433 | 0.0423 | 0.35 | 0.8533 | 0.0521 | 0.43 | MC |
| F1XVP6 | X | 0.8017 | 0.0006 | 0.01 | 1.3050 | 0.5038 | 4.18 | XX |
| GQ2BDC | | 0.7050 | -0.0961 | -0.80 | 0.7317 | -0.0695 | -0.58 | MC |
| JSKH1Z | | 0.7608 | -0.0402 | -0.33 | 0.8050 | 0.0038 | 0.03 | MC |
| LF2A5P | * | 0.6533 | -0.1477 | -1.23 | 0.5733 | -0.2279 | -1.89 | MC |
| LH825B | | 0.6517 | -0.1494 | -1.24 | 0.6633 | -0.1379 | -1.14 | MD |
| LPX57T | | 0.8783 | 0.0773 | 0.64 | 0.8467 | 0.0455 | 0.38 | MC |
| MWQCA | | 0.6783 | -0.1227 | -1.02 | 0.6983 | -0.1029 | -0.85 | MD |
| NJCDXX | | 0.5533 | -0.2477 | -2.06 | 0.5250 | -0.2762 | -2.29 | MC |
| QHJBRJ | | 0.7533 | -0.0477 | -0.40 | 0.7550 | -0.0462 | -0.38 | MC |
| QZAKX3 | | 0.9150 | 0.1139 | 0.95 | 0.9083 | 0.1071 | 0.89 | TP |
| RLR4MR | | 0.8167 | 0.0156 | 0.13 | 0.8361 | 0.0349 | 0.29 | MC |
| T2D5ME | | 0.7500 | -0.0511 | -0.42 | 0.7133 | -0.0879 | -0.73 | MC |
| UH7DLJ | | 0.8300 | 0.0289 | 0.24 | 0.8033 | 0.0021 | 0.02 | MC |
| URY1LF | | 0.8983 | 0.0973 | 0.81 | 0.8950 | 0.0938 | 0.78 | MC |
| V96HWK | X | 0.6083 | -0.1927 | -1.60 | 0.4033 | -0.3979 | -3.30 | MD |
| VFHW7C | | 0.8450 | 0.0439 | 0.37 | 0.8283 | 0.0271 | 0.23 | XX |
| W4UVY8 | | 0.8033 | 0.0023 | 0.02 | 0.7733 | -0.0279 | -0.23 | MC |
| ZK76UC | | 0.9056 | 0.1045 | 0.87 | 0.9250 | 0.1238 | 1.03 | MC |
| ZWQYX | * | 0.4600 | -0.3411 | -2.84 | 0.5217 | -0.2795 | -2.32 | MC |

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

| | | Summary Statistics | |
|---|-----------------|--------------------|-----------------|
| Grand Means | 0.80105 minutes | | 0.80120 minutes |
| Std Dev Btwn Labs | 0.12026 minutes | | 0.12054 minutes |
| Statistics based on 33 of 35 reporting participants | | | |

Samples Y95-Y96: EPDM compound, batch #1 & Y97-Y98: EPDM compound, batch #2

Comments on assigned Data Flags for Test #685

F1XVP6 (X) - Data for Sample set Y97-Y98 are high.

V96HWK (X) - Data for Sample set Y97-Y98 are low. Also inconsistent in testing within Sample set Y95-Y96.

Instrument Code Listing

685 MDR Vulcanization-Scorch Time, Ts1 (minutes)

Instruments:

(MC) Alpha Technologies [Monsanto] MDR 2000 or 2000E

(MD) Alpha Tech. Rubber Process Analyzer (RPA 2000)

(MP) Alpha Technologies [Monsanto] MDR 2000P

(TP) Tech Pro MDR model MDPT

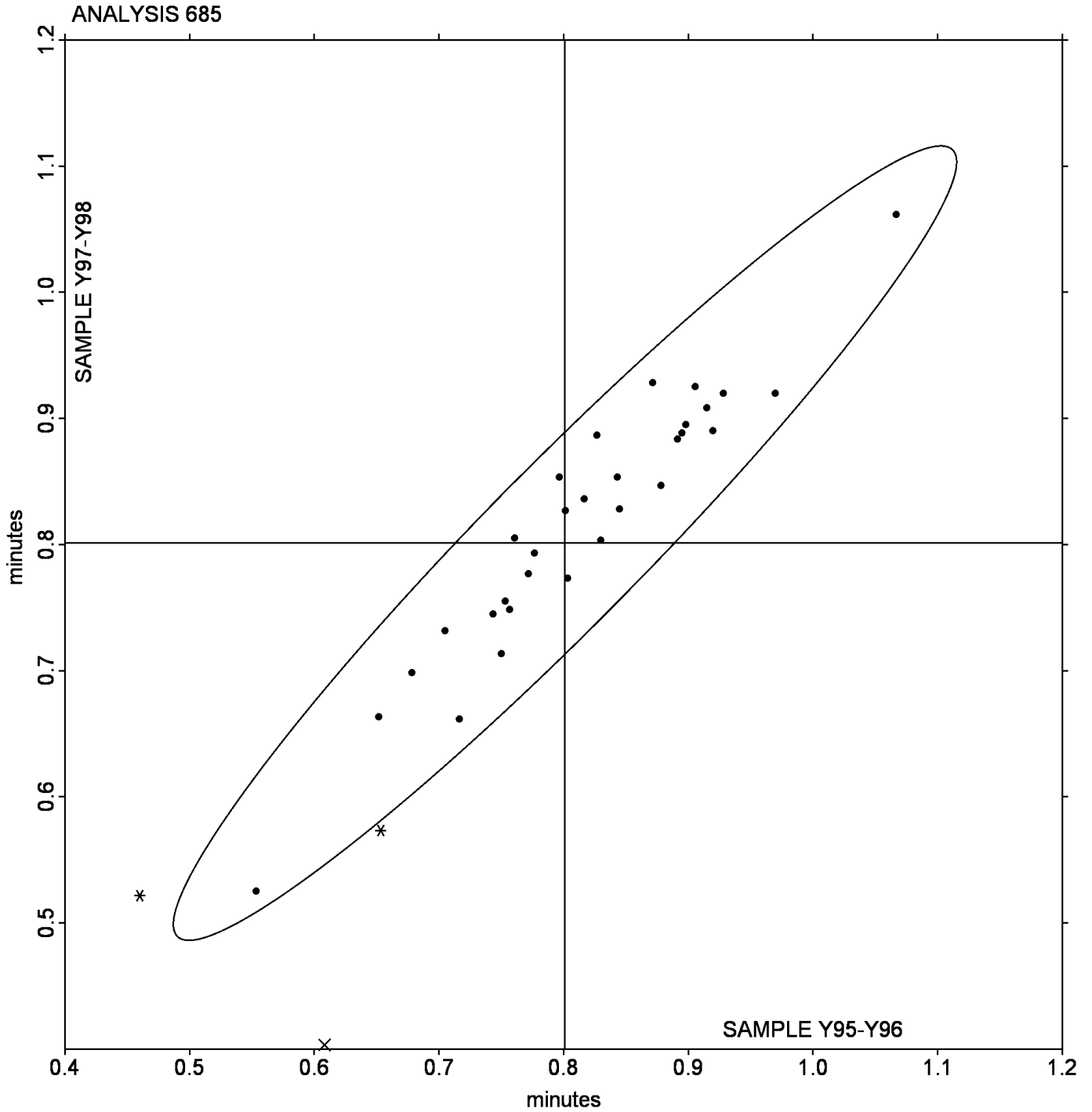
(XX) Instrument model not specified by lab

Analysis 685

MDR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample Y95-Y96 = 0.80105 minutes

Grand Mean Sample Y97-Y98 = 0.80120 minutes



Rubber Interlaboratory Testing Program

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

| WebCode | Data Flag | Sample Y95-Y96 | | | Sample Y97-Y98 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 1EG4CY | | 1.708 | -0.110 | -1.26 | 1.735 | -0.067 | -0.92 | MD |
| 1LETSH | | 1.823 | 0.005 | 0.05 | 1.843 | 0.041 | 0.56 | MC |
| 2VRLD4 | | 1.885 | 0.067 | 0.77 | 1.860 | 0.058 | 0.79 | MC |
| 3JCXSK | | 1.725 | -0.093 | -1.07 | 1.743 | -0.059 | -0.81 | MD |
| 3K41FL | | 1.867 | 0.048 | 0.56 | 1.852 | 0.049 | 0.67 | MC |
| 66W2AB | | 1.945 | 0.127 | 1.46 | 1.892 | 0.089 | 1.22 | MD |
| 674EE6 | | 1.872 | 0.053 | 0.61 | 1.827 | 0.024 | 0.33 | MC |
| 6RGN7S | X | 1.482 | -0.337 | -3.87 | 1.487 | -0.316 | -4.33 | MC |
| 8Y4JQ7 | X | 1.678 | -0.140 | -1.61 | 1.585 | -0.217 | -2.98 | MD |
| 9SNB9F | | 1.838 | 0.020 | 0.23 | 1.842 | 0.039 | 0.54 | MC |
| ADWZ4V | | 1.642 | -0.177 | -2.03 | 1.688 | -0.114 | -1.56 | TP |
| DBLW8A | | 1.923 | 0.105 | 1.21 | 1.858 | 0.056 | 0.77 | MC |
| DV39GZ | | 1.873 | 0.055 | 0.63 | 1.813 | 0.011 | 0.15 | MC |
| EHVNQU | | 1.880 | 0.062 | 0.71 | 1.792 | -0.011 | -0.15 | MC |
| EUCBXZ | | 1.777 | -0.042 | -0.48 | 1.807 | 0.004 | 0.06 | MC |
| EXM77W | | 1.833 | 0.015 | 0.17 | 1.831 | 0.028 | 0.39 | MC |
| F4MYZR | | 1.742 | -0.077 | -0.88 | 1.693 | -0.109 | -1.50 | MC |
| FZNL1F | | 1.652 | -0.167 | -1.92 | 1.677 | -0.126 | -1.72 | MC |
| G2QY4Z | | 1.847 | 0.029 | 0.33 | 1.828 | 0.025 | 0.35 | MC |
| GFSJT4 | | 1.768 | -0.050 | -0.57 | 1.735 | -0.067 | -0.92 | MC |
| GRA378 | | 1.943 | 0.125 | 1.44 | 1.933 | 0.131 | 1.79 | XX |
| JKEVKS | | 1.857 | 0.038 | 0.44 | 1.850 | 0.048 | 0.65 | MC |
| JYMR57 | | 1.795 | -0.023 | -0.27 | 1.768 | -0.034 | -0.47 | TP |
| LVEH47 | | 1.808 | -0.010 | -0.11 | 1.808 | 0.006 | 0.08 | MC |
| MVPKZZ | X | 1.768 | -0.050 | -0.57 | 3.785 | 1.983 | 27.16 | XX |
| NGBQYF | | 1.930 | 0.112 | 1.29 | 1.893 | 0.091 | 1.24 | MC |
| NJV9EY | | 1.862 | 0.043 | 0.50 | 1.840 | 0.038 | 0.51 | MC |
| QMN63F | | 1.650 | -0.168 | -1.94 | 1.637 | -0.166 | -2.27 | MD |
| QVAEZY | | 1.843 | 0.025 | 0.29 | 1.827 | 0.024 | 0.33 | MC |
| R2AJPG | | 1.858 | 0.040 | 0.46 | 1.852 | 0.049 | 0.67 | XX |
| RSVYRK | | 1.858 | 0.040 | 0.46 | 1.853 | 0.050 | 0.69 | MC |
| U74B37 | | 1.647 | -0.172 | -1.97 | 1.657 | -0.146 | -2.00 | TP |
| W5C8QX | | 1.888 | 0.070 | 0.81 | 1.863 | 0.061 | 0.83 | MC |
| Y3J2MB | | 1.838 | 0.020 | 0.23 | 1.815 | 0.013 | 0.17 | MC |
| ZYRTZ4 | | 1.805 | -0.013 | -0.15 | 1.768 | -0.034 | -0.47 | TP |

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

| | | Summary Statistics | |
|---|----------------|--------------------|----------------|
| Grand Means | 1.8182 minutes | | 1.8025 minutes |
| Std Dev Btwn Labs | 0.0869 minutes | | 0.0730 minutes |
| Statistics based on 32 of 35 reporting participants | | | |

Samples Y95-Y96: EPDM compound, batch #1 & Y97-Y98: EPDM compound, batch #2

Comments on assigned Data Flags for Test #686

6RGN7S (X) - Data for all Samples are low. Possible Systematic Error.

8Y4JQ7 (X) - Data for Sample set Y97-Y98 are low. Also inconsistent in testing within Sample set Y95-Y96.

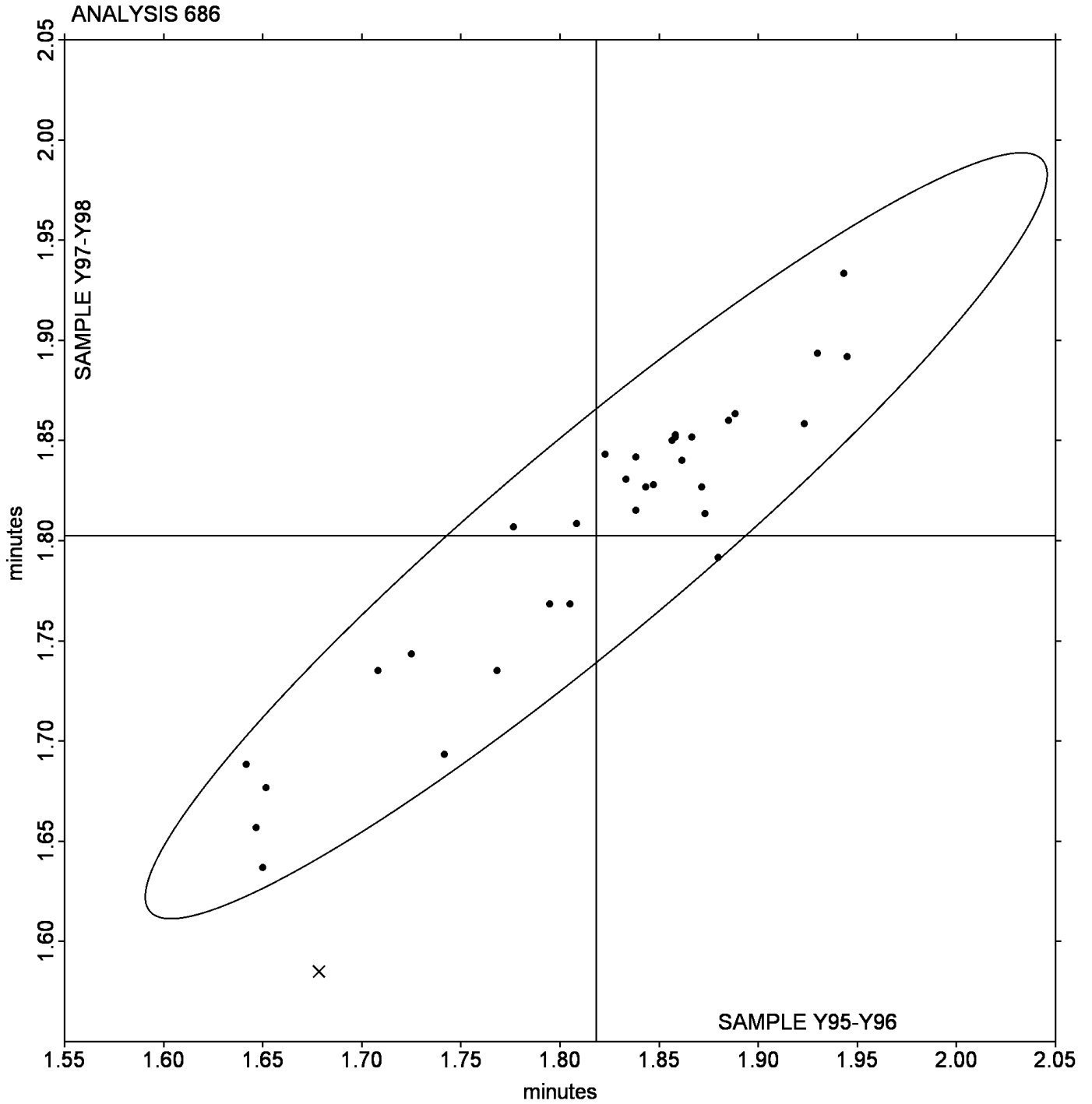
MVPKZZ (X) - Data for Sample set Y97-Y98 are high.

Analysis 686

MDR Vulcanization-Cure Time 50% (minutes)

Grand Mean Sample Y95-Y96 = 1.8182 minutes

Grand Mean Sample Y97-Y98 = 1.8025 minutes



Rubber Interlaboratory Testing Program

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

| WebCode | Data Flag | Sample Y95-Y96 | | | Sample Y97-Y98 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 2C4R6G | | 4.665 | -0.016 | -0.04 | 4.746 | 0.076 | 0.19 | MC |
| 38W9C6 | | 4.607 | -0.074 | -0.19 | 4.587 | -0.083 | -0.21 | MC |
| 492V6J | | 5.080 | 0.399 | 1.01 | 5.037 | 0.367 | 0.92 | MC |
| 4GFTQW | | 4.097 | -0.584 | -1.48 | 4.172 | -0.498 | -1.24 | TP |
| 4P7VCV | | 4.522 | -0.159 | -0.40 | 4.687 | 0.017 | 0.04 | MC |
| 5ZHKTB | | 4.525 | -0.156 | -0.39 | 4.600 | -0.069 | -0.17 | MC |
| 61NNK1 | * | 3.980 | -0.701 | -1.78 | 4.187 | -0.483 | -1.21 | TP |
| 6YT547 | | 4.947 | 0.266 | 0.67 | 4.968 | 0.299 | 0.75 | MC |
| 7B17H2 | | 4.680 | -0.001 | 0.00 | 4.743 | 0.074 | 0.19 | MC |
| 8EATM1 | | 4.798 | 0.118 | 0.30 | 4.888 | 0.219 | 0.55 | MC |
| AF5ZE4 | | 4.365 | -0.316 | -0.80 | 4.355 | -0.314 | -0.79 | MC |
| APZJUJ | | 5.017 | 0.336 | 0.85 | 5.022 | 0.352 | 0.88 | MC |
| BE1MMN | | 4.325 | -0.356 | -0.90 | 4.287 | -0.383 | -0.96 | MD |
| C62DP9 | | 4.863 | 0.183 | 0.46 | 4.898 | 0.229 | 0.57 | MC |
| CGT5TL | | 4.460 | -0.221 | -0.56 | 4.458 | -0.211 | -0.53 | MC |
| CWE8XX | | 5.039 | 0.358 | 0.91 | 5.067 | 0.397 | 0.99 | MC |
| DQQ5BC | | 4.330 | -0.351 | -0.89 | 4.317 | -0.353 | -0.88 | TP |
| ED3HBH | | 4.863 | 0.183 | 0.46 | 4.893 | 0.224 | 0.56 | MD |
| EKPM7R | | 5.035 | 0.354 | 0.90 | 4.940 | 0.271 | 0.68 | MC |
| EQ1A53 | | 5.398 | 0.718 | 1.82 | 5.358 | 0.689 | 1.72 | MD |
| GG76KB | | 4.278 | -0.402 | -1.02 | 4.260 | -0.409 | -1.02 | MC |
| GMAUN6 | | 5.267 | 0.586 | 1.49 | 5.210 | 0.541 | 1.35 | MC |
| GVBXDQ | * | 3.740 | -0.941 | -2.39 | 3.622 | -1.048 | -2.62 | MC |
| HRRJYV | | 4.355 | -0.326 | -0.83 | 4.228 | -0.441 | -1.10 | TP |
| J7ARC4 | | 5.155 | 0.474 | 1.20 | 5.123 | 0.454 | 1.14 | XX |
| MPZ3N8 | | 4.443 | -0.237 | -0.60 | 4.278 | -0.391 | -0.98 | XX |
| P57HDV | | 4.445 | -0.236 | -0.60 | 4.375 | -0.294 | -0.74 | MC |
| T9C8SH | | 4.840 | 0.159 | 0.40 | 4.847 | 0.177 | 0.44 | MC |
| TKZ2LS | X | 4.267 | -0.414 | -1.05 | 7.865 | 3.196 | 7.99 | XX |
| UN9BPA | | 4.337 | -0.344 | -0.87 | 4.142 | -0.528 | -1.32 | MD |
| V1CD3H | | 4.733 | 0.053 | 0.13 | 4.618 | -0.051 | -0.13 | MD |
| VRA2Y2 | | 5.070 | 0.389 | 0.99 | 5.045 | 0.376 | 0.94 | MC |
| WW1Q57 | | 5.025 | 0.344 | 0.87 | 4.942 | 0.272 | 0.68 | MC |
| YCVQNC | | 5.178 | 0.497 | 1.26 | 5.189 | 0.520 | 1.30 | MC |
| ZF41T7 | X | 4.373 | -0.307 | -0.78 | 4.845 | 0.176 | 0.44 | XX |

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

| | | Summary Statistics | | |
|---|----------------|--------------------|----------------|--|
| Grand Means | 4.6807 minutes | | 4.6693 minutes | |
| Std Dev Btwn Labs | 0.3943 minutes | | 0.3999 minutes | |
| Statistics based on 33 of 35 reporting participants | | | | |

Samples Y95-Y96: EPDM compound, batch #1 & Y97-Y98: EPDM compound, batch #2

Comments on assigned Data Flags for Test #687

TKZ2LS (X) - Data for Sample set Y97-Y98 are high.

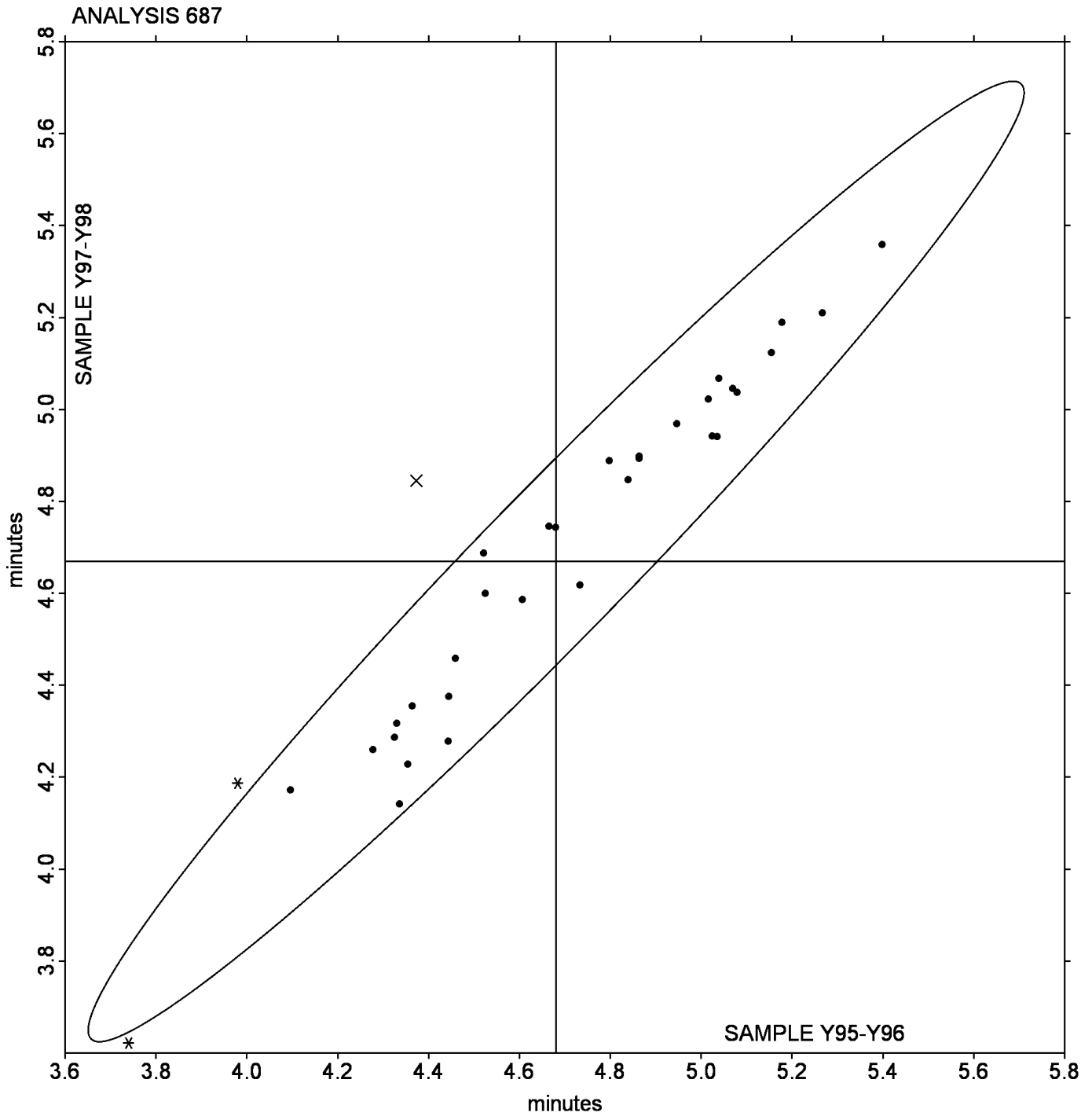
ZF41T7 (X) - Inconsistency in testing between Sample sets.

Analysis 687

MDR Vulcanization-Cure Time 90% (minutes)

Grand Mean Sample Y95-Y96 = 4.6807 minutes

Grand Mean Sample Y97-Y98 = 4.6693 minutes



Rubber Interlaboratory Testing Program

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

| WebCode | Data Flag | Sample Y95-Y96 | | | Sample Y97-Y98 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 1W3651 | | 5.210 | -0.292 | -0.38 | 5.254 | -0.500 | -0.64 | MC |
| 2BLY1C | | 5.285 | -0.217 | -0.29 | 5.888 | 0.134 | 0.17 | MC |
| 2CB1TU | | 6.483 | 0.981 | 1.30 | 6.513 | 0.759 | 0.97 | MD |
| 2SBZVJ | | 6.175 | 0.673 | 0.89 | 6.578 | 0.824 | 1.05 | MC |
| 36KDAT | | 5.640 | 0.138 | 0.18 | 5.947 | 0.192 | 0.24 | MC |
| 4QJLPK | | 6.172 | 0.670 | 0.88 | 6.575 | 0.821 | 1.05 | XX |
| 8J7VE2 | | 6.227 | 0.725 | 0.96 | 6.293 | 0.539 | 0.69 | MC |
| ATGEK2 | | 5.705 | 0.203 | 0.27 | 6.012 | 0.257 | 0.33 | TP |
| B24PC4 | | 5.532 | 0.030 | 0.04 | 5.569 | -0.186 | -0.24 | MC |
| BDD9UB | | 5.197 | -0.305 | -0.40 | 5.485 | -0.269 | -0.34 | MC |
| CG5H35 | | 5.313 | -0.188 | -0.25 | 5.629 | -0.125 | -0.16 | MC |
| CTKVDZ | | 5.490 | -0.012 | -0.02 | 5.838 | 0.084 | 0.11 | MC |
| E4QS6S | | 4.513 | -0.989 | -1.30 | 4.755 | -0.999 | -1.27 | MC |
| EFUM1J | * | 7.497 | 1.995 | 2.63 | 7.590 | 1.836 | 2.34 | MC |
| FLJMRN | | 6.305 | 0.803 | 1.06 | 6.472 | 0.717 | 0.91 | XX |
| FSJ1GR | | 5.327 | -0.175 | -0.23 | 5.488 | -0.266 | -0.34 | MC |
| GWCCW | | 4.562 | -0.940 | -1.24 | 4.798 | -0.956 | -1.22 | TP |
| H123UJ | | 4.780 | -0.722 | -0.95 | 5.220 | -0.534 | -0.68 | TP |
| HK69YY | | 4.582 | -0.920 | -1.21 | 4.610 | -1.144 | -1.46 | MC |
| J4B48F | | 4.956 | -0.545 | -0.72 | 5.082 | -0.673 | -0.86 | MD |
| J69Z2Q | | 5.848 | 0.346 | 0.46 | 5.937 | 0.182 | 0.23 | MC |
| MQY7AH | | 5.376 | -0.126 | -0.17 | 5.721 | -0.034 | -0.04 | MD |
| SJTWED | | 5.486 | -0.016 | -0.02 | 5.797 | 0.043 | 0.05 | XX |
| TCJ3WZ | | 5.220 | -0.282 | -0.37 | 5.388 | -0.366 | -0.47 | MC |
| U1276G | | 5.380 | -0.122 | -0.16 | 5.552 | -0.203 | -0.26 | MC |
| VP1PRU | | 5.787 | 0.285 | 0.38 | 6.172 | 0.417 | 0.53 | TP |
| WJWLW | | 6.957 | 1.455 | 1.92 | 7.420 | 1.666 | 2.12 | MD |
| WQ79AN | | 4.773 | -0.729 | -0.96 | 4.887 | -0.868 | -1.11 | MC |
| WS2BGH | | 5.399 | -0.102 | -0.14 | 5.346 | -0.408 | -0.52 | MD |
| XDXL3G | | 5.042 | -0.460 | -0.61 | 5.230 | -0.524 | -0.67 | MC |
| XVPWTA | | 5.011 | -0.491 | -0.65 | 5.347 | -0.407 | -0.52 | MC |
| XVQX9X | X | 4.947 | -0.555 | -0.73 | 2.423 | -3.331 | -4.24 | XX |
| YCZJMR | | 3.822 | -1.680 | -2.22 | 4.062 | -1.692 | -2.16 | MC |
| YFA9J1 | * | 5.200 | -0.302 | -0.40 | 5.930 | 0.176 | 0.22 | MC |
| ZQCZP8 | | 6.812 | 1.310 | 1.73 | 7.265 | 1.511 | 1.92 | MC |

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

Summary Statistics

Grand Means

5.5019 lbf.in

5.7544 lbf.in

Std Dev Btwn Labs

0.7577 lbf.in

0.7849 lbf.in

Statistics based on 34 of 35 reporting participants

Summary Statistics in SI Units

Grand Means

6.2163 dN.m

6.5016 dN.m

Std Dev Btwn Labs

0.8561 dN.m

0.8868 dN.m

Statistics based on 34 of 35 reporting participants

Samples Y95-Y96: EPDM compound, batch #1 & Y97-Y98: EPDM compound, batch #2

Comments on assigned Data Flags for Test #688

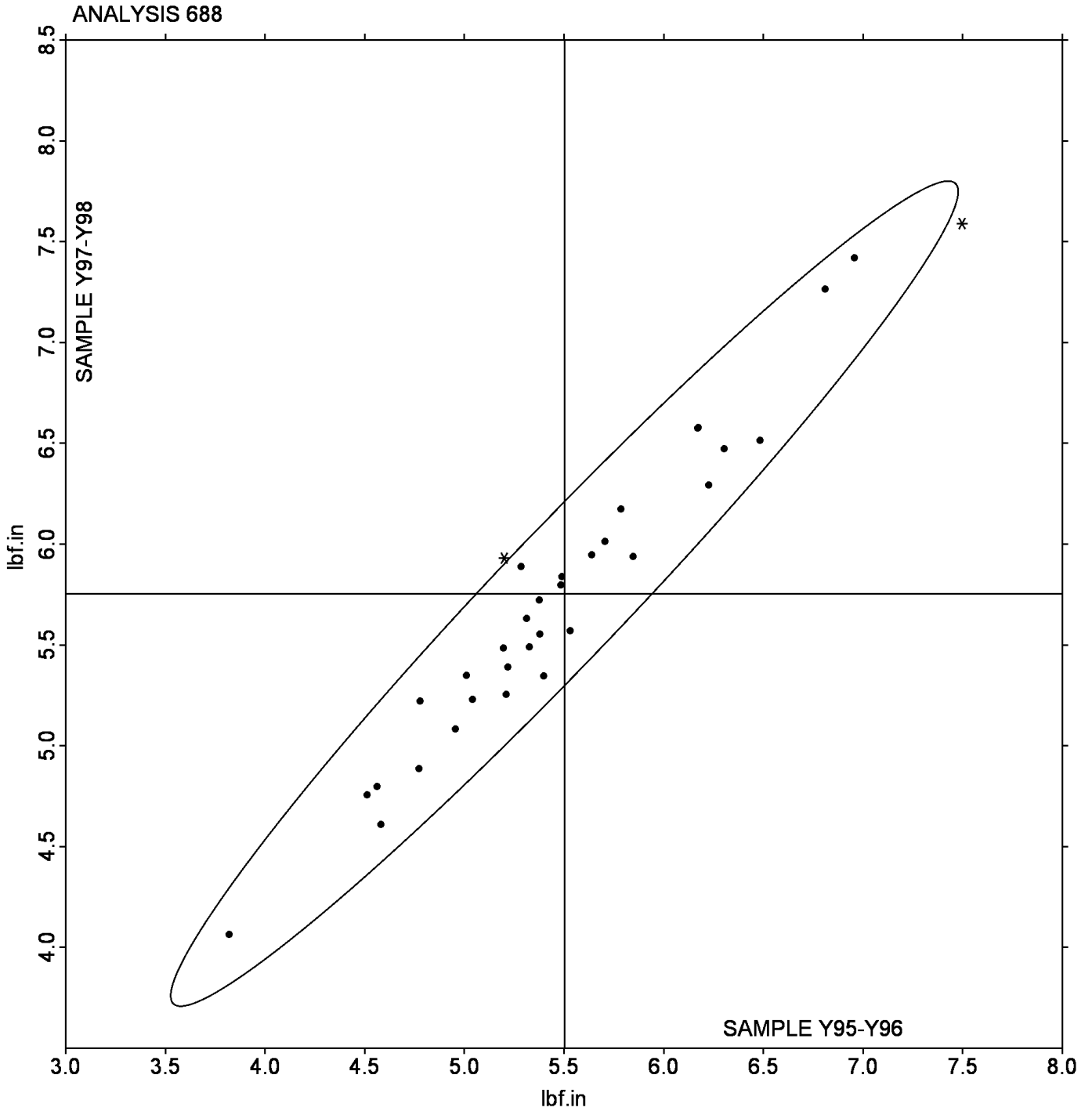
XVQX9X (X) - Data for Sample set Y97-Y98 are low.

Analysis 688

MDR Vulcanization: Minimum Torque (lbf.in)

Grand Mean Sample Y95-Y96 = 5.5019 lbf.in

Grand Mean Sample Y97-Y98 = 5.7544 lbf.in



Rubber Interlaboratory Testing Program

Analysis 689

MDR Vulcanization: Maximum Torque (lbf.in)

| WebCode | Data Flag | Sample Y95-Y96 | | | Sample Y97-Y98 | | | Instr Code |
|---------|-----------|----------------|----------------------|-------|----------------|----------------------|-------|------------|
| | | Lab Mean | Diff from Grand Mean | CPV | Lab Mean | Diff from Grand Mean | CPV | |
| 19LC3G | | 14.60 | 0.20 | 0.24 | 14.63 | 0.08 | 0.10 | MC |
| 3ZW861 | | 14.97 | 0.56 | 0.67 | 15.18 | 0.62 | 0.75 | MD |
| 4TEGSS | * | 14.25 | -0.16 | -0.18 | 13.97 | -0.59 | -0.71 | MC |
| 4XZ6PB | | 14.76 | 0.35 | 0.42 | 14.97 | 0.42 | 0.50 | MC |
| 552X46 | | 14.77 | 0.37 | 0.44 | 14.88 | 0.33 | 0.39 | MC |
| 6DN4Y9 | | 14.49 | 0.08 | 0.10 | 14.44 | -0.12 | -0.14 | MC |
| 6W22E6 | | 14.78 | 0.38 | 0.46 | 14.96 | 0.40 | 0.49 | MD |
| 6YY6GU | * | 13.83 | -0.57 | -0.68 | 14.44 | -0.12 | -0.14 | TP |
| 7RQDGV | | 14.68 | 0.28 | 0.33 | 14.94 | 0.38 | 0.46 | MC |
| 7UKGM | | 14.16 | -0.24 | -0.28 | 14.35 | -0.21 | -0.25 | XX |
| 9MG4RJ | | 13.31 | -1.10 | -1.30 | 13.48 | -1.08 | -1.30 | MC |
| A1YXT3 | | 14.45 | 0.04 | 0.05 | 14.73 | 0.18 | 0.21 | MD |
| A9SRK8 | | 15.70 | 1.30 | 1.54 | 15.83 | 1.27 | 1.53 | MC |
| AJMEPW | | 13.81 | -0.59 | -0.70 | 13.92 | -0.63 | -0.76 | MC |
| B57ADN | | 14.37 | -0.03 | -0.04 | 14.50 | -0.06 | -0.07 | MC |
| BCM1XT | | 15.87 | 1.46 | 1.74 | 16.14 | 1.58 | 1.91 | XX |
| CSTMS3 | | 13.86 | -0.54 | -0.65 | 14.05 | -0.50 | -0.60 | MC |
| DHVZHB | | 13.39 | -1.01 | -1.21 | 13.55 | -1.00 | -1.21 | TP |
| EG91Q6 | | 14.50 | 0.10 | 0.12 | 14.62 | 0.06 | 0.07 | MC |
| GN84UU | | 15.31 | 0.91 | 1.08 | 15.43 | 0.87 | 1.05 | TP |
| JDWKQP | | 14.36 | -0.04 | -0.05 | 14.43 | -0.13 | -0.15 | MC |
| JHVCZS | | 13.98 | -0.42 | -0.50 | 14.05 | -0.50 | -0.61 | MC |
| KALBAB | X | 15.90 | 1.50 | 1.79 | 15.46 | 0.91 | 1.09 | MC |
| KT6S2C | | 12.88 | -1.53 | -1.82 | 13.22 | -1.34 | -1.61 | XX |
| LBVLY2 | | 14.38 | -0.03 | -0.03 | 14.48 | -0.08 | -0.10 | MC |
| ME22NB | | 14.12 | -0.28 | -0.33 | 14.32 | -0.23 | -0.28 | MD |
| NR426F | | 13.23 | -1.17 | -1.40 | 13.46 | -1.10 | -1.32 | TP |
| P3A9PY | | 16.29 | 1.89 | 2.25 | 16.33 | 1.77 | 2.13 | MC |
| Q1Y2U4 | X | 14.13 | -0.27 | -0.32 | 13.54 | -1.02 | -1.22 | MD |
| Q2U14G | | 14.40 | 0.00 | -0.01 | 14.65 | 0.10 | 0.12 | MC |
| Q8P79S | | 15.39 | 0.99 | 1.18 | 15.53 | 0.98 | 1.18 | MC |
| REQE8Y | | 12.41 | -1.99 | -2.37 | 12.48 | -2.08 | -2.50 | MC |
| SNTBF3 | X | 13.93 | -0.47 | -0.56 | 11.63 | -2.93 | -3.52 | XX |
| W3WTN | | 15.15 | 0.75 | 0.89 | 15.27 | 0.72 | 0.86 | MC |
| WZM8JB | | 14.41 | 0.01 | 0.02 | 14.57 | 0.01 | 0.01 | MC |

Analysis 689

MDR Vulcanization: Maximum Torque (lbf.in)

Summary Statistics

Grand Means

14.400 lbf.in

14.555 lbf.in

Std Dev Btwn Labs

0.840 lbf.in

0.831 lbf.in

Statistics based on 32 of 35 reporting participants

Summary Statistics in SI Units

Grand Means

16.270 dN.m

16.445 dN.m

Std Dev Btwn Labs

0.949 dN.m

0.939 dN.m

Statistics based on 32 of 35 reporting participants

Samples Y95-Y96: EPDM compound, batch #1 & Y97-Y98: EPDM compound, batch #2

Comments on assigned Data Flags for Test #689

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

Q1Y2U4 (X) - Inconsistency in testing between Sample sets. Also inconsistent in testing within both Sample sets.

SNTBF3 (X) - Data for Sample set Y97-Y98 are low.

Analysis 689

MDR Vulcanization: Maximum Torque (lbf.in)

Grand Mean Sample Y95-Y96 = 14.400 lbf.in

Grand Mean Sample Y97-Y98 = 14.555 lbf.in

