Collaborative Testing Services, Inc.

Rubber Interlaboratory Testing Program

Summary Report #207- 1st Qtr 2021

About the Rubber Program, About CTS

Key for Web Summary Report

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

Analysis	Analysis Name
690	RPA Rheological Properties: Part A - G′ at 20Hz
691	RPA Rheological Properties: Part A - G″ at 20Hz
695	RPA Rheological Properties: Part B - G′ at 1.0Hz
696	RPA Rheological Properties: Part B - G″ at 1.0Hz

ABOUT THE PROGRAM

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

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

ABOUT CTS

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

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Key for Web Summary Report (Page 1 of 2)

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

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

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

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

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

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

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

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

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

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

Common Problems Highlighted in Footnotes

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

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

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

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

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

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

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

WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample A13-A14 Lab Mean	Diff from Grand Mean	CPV
2CE67P		3,448.5	134.4	0.93	3,366.5	97.5	0.68
2EA6Y2		3,459.7	145.6	1.01	3,436.4	167.4	1.17
2K6NKX		3,356.5	42.4	0.29	3,463.0	194.0	1.35
3BDRYM		3,286.6	-27.5	-0.19	3,178.5	-90.4	-0.63
3M7BDT		3,179.7	-134.4	-0.93	3,200.1	-68.9	-0.48
48AGFR		3,266.0	-48.1	-0.33	3,377.0	108.0	0.75
67W73L		3,310.9	-3.3	-0.02	3,340.5	71.5	0.50
68N3PU		3,428.1	114.0	0.79	3,474.4	205.4	1.43
69TXT6		3,190.0	-124.1	-0.86	3,200.0	-69.0	-0.48
6U3PDK		3,497.2	183.1	1.27	3,258.1	-10.8	-0.08
78J6UP		3,527.0	212.9	1.48	3,293.0	24.0	0.17
7V68PK		2,973.3	-340.8	-2.37	2,976.2	-292.8	-2.04
7XW73J		3,410.0	95.9	0.67	3,392.5	123.5	0.86
9274LQ		3,364.5	50.4	0.35	3,225.1	-43.9	-0.31
967EGQ		3,476.9	162.7	1.13	3,363.2	94.2	0.66
9A4VUK		3,339.0	24.9	0.17	3,239.8	-29.2	-0.20
A6MM7K		3,171.0	-143.1	-0.99	3,168.5	-100.5	-0.70
AAJEDG		3,403.0	88.9	0.62	3,216.5	-52.5	-0.37
ACE762		3,246.0	-68.1	-0.47	3,299.6	30.7	0.21
AEP6GM	*	2,951.5	-362.6	-2.52	2,987.8	-281.2	-1.96
AJKYEN		3,431.1	117.0	0.81	3,434.7	165.7	1.16
BJZHYL		3,140.0	-174.1	-1.21	3,110.0	-159.0	-1.11
BYVZNK		3,172.0	-142.1	-0.99	3,024.8	-244.2	-1.70
CCWYBG		3,248.9	-65.2	-0.45	3,248.9	-20.1	-0.14
CEKBBM	X	2,831.5	-482.6	-3.35	2,754.5	-514.4	-3.59
CNR66E		3,025.5	-288.6	-2.00	2,992.0	-277.0	-1.93
CWMAXF		3,338.0	23.9	0.17	3,183.0	-86.0	-0.60
D8YUVH		3,604.9	290.8	2.02	3,537.2	268.2	1.87
DN8NPC		3,379.3	65.2	0.45	3,317.1	48.1	0.34
DXA9PJ		3,438.0	123.9	0.86	3,464.5	195.5	1.36
DYXKAX		3,507.0	192.9	1.34	3,418.5	149.5	1.04
F7XFMF		3,490.0	175.9	1.22	3,325.0	56.0	0.39
FE88QH		3,581.5	267.4	1.86	3,522.0	253.0	1.77
FRVA9B		3,165.7	-148.4	-1.03	3,204.9	-64.1	-0.45
FWRXPH		3,160.4	-153.7	-1.07	3,111.0	-158.0	-1.10
GLN37D	*	3,330.5	16.4	0.11	3,066.0	-203.0	-1.42
GQ4BUC		3,055.0	-259.1	-1.80	2,965.2	-303.8	-2.12
GU4LQC		3,131.4	-182.7	-1.27	3,074.1	-194.9	-1.36

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WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample A13-A14 Lab Mean	Diff from Grand Mean	CPV
GWA36V		3,164.3	-149.8	-1.04	3,088.6	-180.4	-1.26
GWFW2T		3,277.0	-37.1	-0.26	3,152.0	-117.0	-0.82
H2GVRD		3,400.5	86.4	0.60	3,474.0	205.0	1.43
H7CPPF		3,387.0	72.9	0.51	3,357.0	88.0	0.61
H8H8MB		3,149.0	-165.1	-1.15	3,125.0	-144.0	-1.00
JWYEC7		3,153.4	-160.7	-1.12	3,094.0	-175.0	-1.22
K7UTUP		3,379.0	64.9	0.45	3,435.0	166.0	1.16
K9RV28		3,224.2	-89.9	-0.62	3,278.6	9.6	0.07
KEU8X4		3,366.5	52.4	0.36	3,280.0	11.0	0.08
KVHHK7		3,304.0	-10.1	-0.07	3,303.3	34.3	0.24
L6NJHC		3,153.4	-160.7	-1.12	2,988.5	-280.5	-1.96
LF7439		3,116.5	-197.6	-1.37	3,185.0	-84.0	-0.59
LM8FY7	X	2,992.9	-321.2	-2.23	2,776.8	-492.2	-3.44
MT6R88		3,427.5	113.4	0.79	3,262.5	-6.5	-0.05
MVWNW2		3,365.0	50.9	0.35	3,309.0	40.0	0.28
N46EY6		3,450.7	136.6	0.95	3,276.5	7.5	0.05
N7GPAL		3,555.0	240.9	1.67	3,445.0	176.0	1.23
NPKZV6		3,401.2	87.0	0.60	3,324.3	55.3	0.39
NQWW2A		3,189.5	-124.6	-0.87	3,248.0	-21.0	-0.15
PJDTU8		3,475.9	161.7	1.12	3,414.9	146.0	1.02
PN9K26		3,401.5	87.4	0.61	3,336.5	67.5	0.47
PR8XM9		3,252.0	-62.1	-0.43	3,298.5	29.5	0.21
QHF32X		3,108.6	-205.6	-1.43	3,107.5	-161.5	-1.13
R6L6C6		3,647.0	332.9	2.31	3,605.0	336.0	2.35
RA4XWK		3,334.5	20.4	0.14	3,269.5	0.5	0.00
RNWUP3		3,241.6	-72.5	-0.50	3,298.9	29.9	0.21
TL9JQW		3,137.5	-176.6	-1.23	3,218.0	-51.0	-0.36
TLPYJ6		3,243.9	-70.3	-0.49	3,197.0	-72.0	-0.50
TMGXX3		3,370.7	56.6	0.39	3,156.0	-112.9	-0.79
TQFAT3		3,458.5	144.3	1.00	3,447.6	178.6	1.25
UWX33F		3,325.5	11.4	0.08	3,452.0	183.0	1.28
V7KEWX		3,319.5	5.4	0.04	3,306.0	37.0	0.26
VCW4WU		3,416.4	102.3	0.71	3,235.2	-33.8	-0.24
VTWF7V		3,286.5	-27.6	-0.19	3,225.0	-44.0	-0.31
VWKR62		3,446.3	132.1	0.92	3,369.0	100.0	0.70
VXCNUU		3,183.0	-131.1	-0.91	3,176.0	-93.0	-0.65
VZU6MY		3,203.0	-111.1	-0.77	3,134.5	-134.5	-0.94

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Rubber Interlaboratory Testing Program

Analysis 605

Tensile Strength (psi)

WebCode	Data Flag	Sample A11-A12 Lab Mean	Sample A11-A12 Diff from Grand Mean	Sample A11-A12 CPV	Sample A13-A14 Lab Mean	Sample A13-A14 Diff from Grand Mean	Sample A13-A14 CPV
W2689X		3,214.8	-99.3	-0.69	3,158.2	-110.7	-0.77
WEU4AW		3,472.9	158.8	1.10	3,318.5	49.5	0.35
WGJFA2		3,321.4	7.3	0.05	3,314.1	45.2	0.32
WGXYTY	X	2,087.8	-1,226.3	-8.51	2,011.7	-1,257.3	-8.78
WMP94X		3,378.0	63.9	0.44	3,444.5	175.5	1.23
XJGG8C		3,294.0	-20.1	-0.14	3,354.5	85.5	0.60
XNZBPW		3,319.0	4.9	0.03	3,387.3	118.3	0.83
Y88ZFY		3,458.2	144.1	1.00	3,304.1	35.1	0.24
YB92FV		3,343.1	29.0	0.20	3,198.1	-70.9	-0.49
YHT4MY		3,148.0	-166.1	-1.15	3,034.0	-235.0	-1.64
YWNJMR		3,350.4	36.3	0.25	3,401.2	132.2	0.92
Z79CCU		3,286.0	-28.1	-0.20	3,350.5	81.5	0.57

Summary Statistics

	Sample A11-A12	Sample A13-A14
Grand Means	3,314.12 psi	3,268.97 psi
Stnd Dev Btwn Labs	144.05 psi	143.28 psi

Statistics based on 84 of 87 reporting participants

Summary Statistics in SI Units

	Sample A11-A12	Sample A13-A14
Grand Means	22.850 MPa	22.54 MPa
Stnd Dev Btwn Labs	0.993 MPa	0.99 MPa

Statistics based on 84 of 87 reporting participants

Samples A11-A12: Polyisoprene compound, batch #1 & A13-A14: Polyisoprene compound, batch #2

Comments on Assigned Data Flags for Test #605

CEKBBM (X) - Data for all samples are low. Possible Systematic Error.

LM8FY7 (X) - Data for sample group A13-A14 are low.

WGXYTY (X) - Data for all samples are low. Possible Systematic Error.

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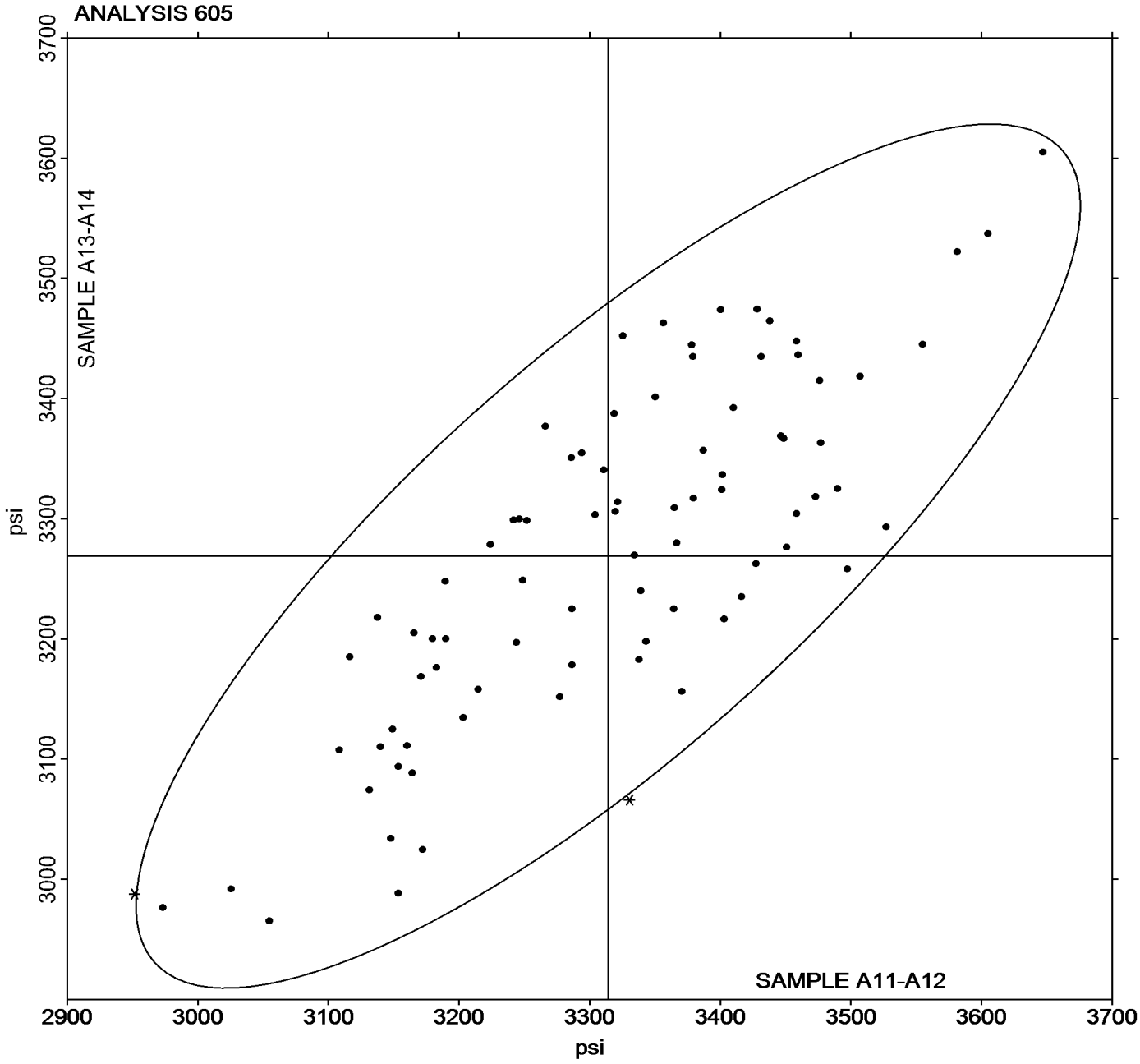
Grand Mean Sample **A11-A12** = 3,314.12 psi

Grand Mean Sample **A13-A14** = 3,268.97 psi



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WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample A13-A14 Lab Mean	Diff from Grand Mean	CPV
2CE67P		674.5	28.1	0.72	663.0	16.8	0.44
2EA6Y2		655.8	9.5	0.24	648.5	2.3	0.06
2K6NKX	X	560.5	-85.9	-2.20	525.5	-120.7	-3.17
3M7BDT		552.2	-94.2	-2.42	564.3	-81.9	-2.15
48AGFR		609.5	-36.9	-0.95	596.0	-50.2	-1.32
67W73L		652.0	5.6	0.14	640.0	-6.2	-0.16
68N3PU		665.3	18.9	0.48	660.7	14.5	0.38
69TXT6		635.0	-11.4	-0.29	625.0	-21.2	-0.56
6U3PDK		637.7	-8.7	-0.22	631.6	-14.6	-0.38
78J6UP		685.5	39.1	1.00	689.0	42.8	1.13
7V68PK	X	945.5	299.1	7.67	915.0	268.8	7.07
7XW73J		636.0	-10.4	-0.27	614.5	-31.7	-0.83
9274LQ	*	565.8	-80.6	-2.07	555.2	-91.0	-2.39
967EGQ	*	698.5	52.1	1.34	672.0	25.8	0.68
9A4VUK		685.0	38.6	0.99	675.0	28.8	0.76
A6MM7K	X	576.2	-70.2	-1.80	614.2	-32.0	-0.84
AAJEDG		648.5	2.1	0.05	638.0	-8.2	-0.22
ACE762	X	815.5	169.1	4.34	938.5	292.3	7.69
AEP6GM		622.0	-24.4	-0.63	643.5	-2.7	-0.07
AJKYEN		671.6	25.2	0.65	673.1	26.9	0.71
BYVZNK		724.0	77.6	1.99	716.5	70.3	1.85
CCWYBG		590.0	-56.4	-1.45	585.0	-61.2	-1.61
CEKBBM		625.5	-20.9	-0.54	625.7	-20.5	-0.54
CNR66E		582.5	-63.9	-1.64	599.5	-46.7	-1.23
CWMAXF		683.0	36.6	0.94	663.5	17.3	0.46
D8YUVH		674.7	28.3	0.73	687.7	41.5	1.09
DN8NPC		650.5	4.1	0.11	639.1	-7.1	-0.19
DXA9PJ	*	679.5	33.1	0.85	704.0	57.8	1.52
DYXKAX		691.5	45.1	1.16	680.5	34.3	0.90
F7XFMF		674.5	28.1	0.72	657.0	10.8	0.28
FE88QH		615.0	-31.4	-0.80	603.0	-43.2	-1.14
FRVA9B		627.4	-19.0	-0.49	637.0	-9.2	-0.24
FWRXPH		648.5	2.1	0.05	644.5	-1.7	-0.04
GLN37D		661.5	15.1	0.39	656.5	10.3	0.27
GQ4BUC		642.7	-3.7	-0.09	646.3	0.1	0.00
GU4LQC		632.5	-13.9	-0.36	649.0	2.8	0.07
GWA36V		615.0	-31.4	-0.80	630.0	-16.2	-0.43
GWFW2T		610.5	-35.9	-0.92	596.0	-50.2	-1.32

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WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample A13-A14 Lab Mean	Diff from Grand Mean	CPV
H2GVRD		629.0	-17.4	-0.45	638.0	-8.2	-0.22
H7CPPF		693.5	47.1	1.21	692.5	46.3	1.22
H8H8MB		648.0	1.6	0.04	642.5	-3.7	-0.10
JWYEC7	*	588.9	-57.5	-1.47	616.7	-29.5	-0.78
K7UTUP		663.5	17.1	0.44	661.5	15.3	0.40
K9RV28		606.0	-40.4	-1.04	615.5	-30.7	-0.81
KEU8X4		696.0	49.6	1.27	706.5	60.3	1.59
KVHHK7	*	751.0	104.6	2.68	737.5	91.3	2.40
L6NJHC		648.5	2.1	0.05	643.5	-2.7	-0.07
LF7439		646.5	0.1	0.00	645.5	-0.7	-0.02
LM8FY7	X	1,150.5	504.1	12.93	1,115.0	468.8	12.33
MT6R88		570.0	-76.4	-1.96	562.5	-83.7	-2.20
MVWNW2		723.0	76.6	1.96	723.0	76.8	2.02
N46EY6		690.1	43.7	1.12	690.7	44.5	1.17
N7GPAL		681.0	34.6	0.89	692.0	45.8	1.20
NPKZV6		625.2	-21.2	-0.54	617.1	-29.1	-0.77
NQWW2A		655.0	8.6	0.22	654.5	8.3	0.22
PJDTU8		654.5	8.1	0.21	650.0	3.8	0.10
PN9K26		573.0	-73.4	-1.88	584.0	-62.2	-1.64
PR8XM9		671.5	25.1	0.64	671.5	25.3	0.67
QHF32X		610.8	-35.6	-0.91	609.9	-36.3	-0.95
R6L6C6		653.0	6.6	0.17	648.5	2.3	0.06
RA4XWK		609.5	-36.9	-0.95	615.0	-31.2	-0.82
RNWUP3		661.0	14.6	0.37	661.4	15.2	0.40
TL9JQW		723.5	77.1	1.98	731.0	84.8	2.23
TLPYJ6		654.3	7.9	0.20	649.9	3.7	0.10
TMGXX3		602.5	-43.9	-1.13	616.0	-30.2	-0.79
TQFAT3		647.0	0.6	0.02	646.5	0.3	0.01
UWX33F		620.5	-25.9	-0.66	624.5	-21.7	-0.57
V7KEWX	X	658.5	12.1	0.31	619.5	-26.7	-0.70
VCW4WU		619.8	-26.6	-0.68	625.3	-20.9	-0.55
VTWF7V		652.5	6.1	0.16	659.0	12.8	0.34
VWKR62		637.8	-8.6	-0.22	636.5	-9.7	-0.25
VXCNUU		647.5	1.1	0.03	651.0	4.8	0.13
VZU6MY		602.8	-43.6	-1.12	609.0	-37.2	-0.98
W2689X		640.0	-6.4	-0.16	633.0	-13.2	-0.35
WEU4AW		635.6	-10.8	-0.28	625.4	-20.8	-0.55

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WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample A13-A14 Lab Mean	Diff from Grand Mean	CPV
WGJFA2		638.5	-7.9	-0.20	659.0	12.8	0.34
WGXYTY		644.4	-2.0	-0.05	643.5	-2.7	-0.07
WMP94X		672.0	25.6	0.66	663.5	17.3	0.46
XJGG8C		659.5	13.1	0.34	653.5	7.3	0.19
XNZBPW		658.7	12.3	0.32	681.0	34.8	0.92
Y88ZFY		584.3	-62.1	-1.59	585.7	-60.5	-1.59
YB92FV		630.4	-16.0	-0.41	630.8	-15.4	-0.41
YHT4MY		703.5	57.1	1.46	708.5	62.3	1.64
YWNJMR		702.0	55.6	1.43	705.0	58.8	1.55
Z79CCU		615.0	-31.4	-0.80	622.0	-24.2	-0.64

Summary Statistics

	Sample A11-A12	Sample A13-A14
Grand Means	646.38 percent	646.19 percent
Stnd Dev Btwn Labs	38.99 percent	38.02 percent

Statistics based on 79 of 85 reporting participants

Samples A11-A12: Polyisoprene compound, batch #1 & A13-A14: Polyisoprene compound, batch #2

Comments on Assigned Data Flags for Test #606

2K6NKX (X) - Data for sample group A13-A14 are low.

7V68PK (X) - Data for all samples are high. Possible Systematic Error. Inconsistent within the determinations of sample group A11-A12.

A6MM7K (X) - Inconsistent in testing between samples.

ACE762 (X) - Data for all samples are high. Possible Systematic Error. Inconsistent within the determinations of both sample groups.

LM8FY7 (X) - Extreme Data.

V7KEWX (X) - Inconsistent in testing between samples.

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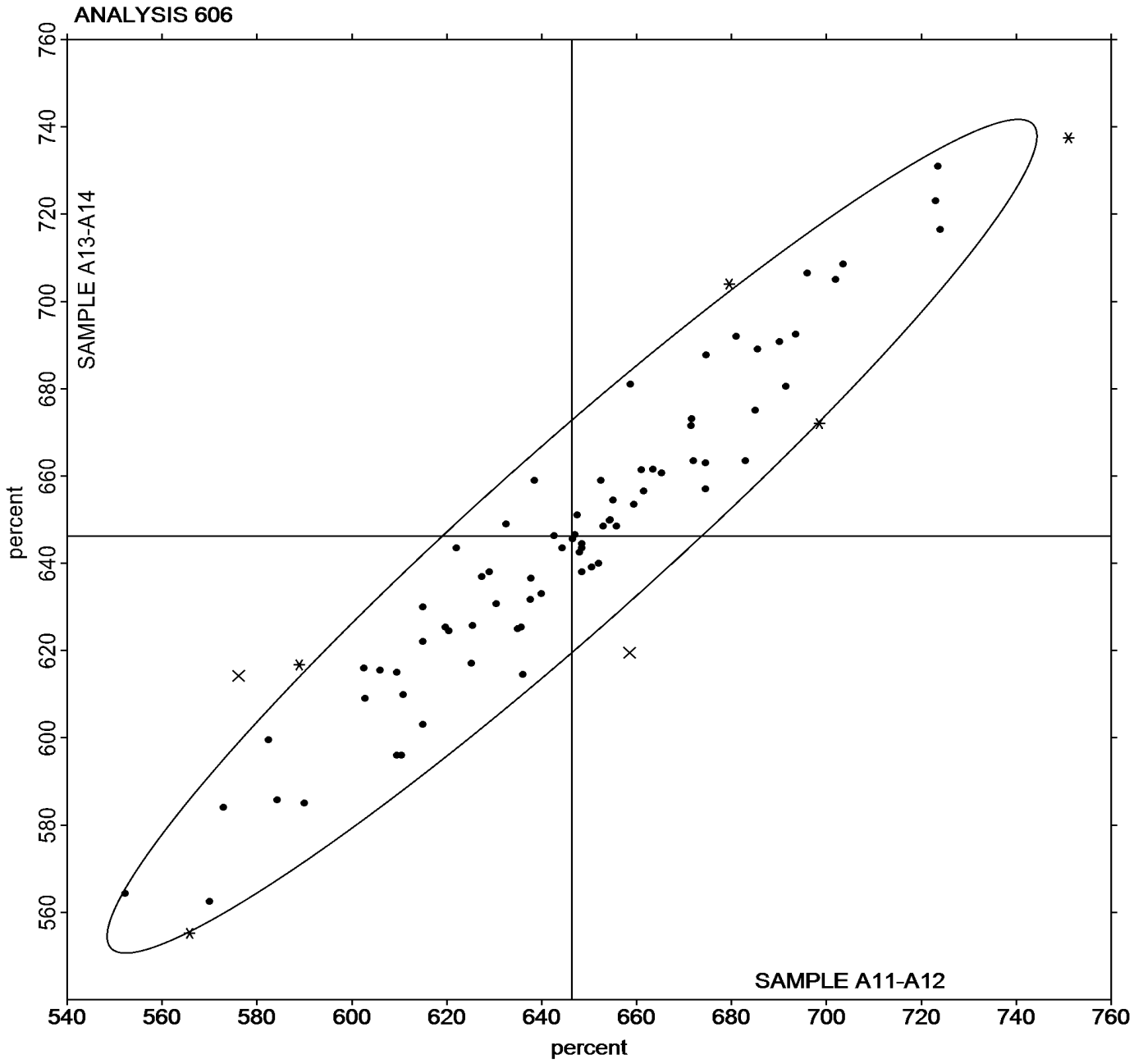
Grand Mean Sample **A11-A12** = 646.38 percent

Grand Mean Sample **A13-A14** = 646.19 percent



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WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample A13-A14 Lab Mean	Diff from Grand Mean	CPV
2CE67P		825.0	-38.1	-0.39	798.0	-44.9	-0.49
2EA6Y2		961.4	98.4	1.00	865.5	22.7	0.25
2K6NKX		825.5	-37.6	-0.38	862.5	19.6	0.22
3M7BDT		1,072.0	208.9	2.11	1,068.0	225.1	2.47
48AGFR		906.5	43.4	0.44	975.0	132.1	1.45
67W73L		827.1	-36.0	-0.36	892.3	49.4	0.54
68N3PU		847.7	-15.4	-0.16	861.1	18.2	0.20
69TXT6		898.5	35.4	0.36	920.0	77.1	0.85
6U3PDK		988.5	125.4	1.27	898.4	55.5	0.61
78J6UP		831.0	-32.1	-0.32	787.5	-55.4	-0.61
7V68PK	X	493.9	-369.2	-3.74	578.0	-264.9	-2.91
7XW73J		969.5	106.4	1.08	1,011.0	168.1	1.85
9274LQ		881.1	18.0	0.18	838.2	-4.7	-0.05
967EGQ		745.5	-117.6	-1.19	768.0	-74.9	-0.82
9A4VUK		802.8	-60.3	-0.61	780.1	-62.8	-0.69
A6MM7K	*	953.5	90.4	0.91	813.2	-29.7	-0.33
AAJEDG		874.5	11.4	0.12	820.5	-22.4	-0.25
AEP6GM		1,007.3	144.2	1.46	938.4	95.5	1.05
AJKYEN		859.7	-3.4	-0.03	826.8	-16.0	-0.18
BYVZNK	*	597.6	-265.5	-2.69	620.8	-222.1	-2.44
CCWYBG		971.0	108.0	1.09	976.1	133.3	1.46
CEKBBM		763.9	-99.1	-1.00	730.1	-112.7	-1.24
CNR66E		851.5	-11.6	-0.12	842.0	-0.9	-0.01
CWMAXF		808.0	-55.1	-0.56	704.5	-138.4	-1.52
D8YUVH		873.3	10.2	0.10	816.1	-26.7	-0.29
DN8NPC		861.6	-1.5	-0.02	830.1	-12.8	-0.14
DXA9PJ		777.0	-86.1	-0.87	805.5	-37.4	-0.41
DYXKAX		795.5	-67.6	-0.68	786.5	-56.4	-0.62
F7XFMF		851.5	-11.6	-0.12	842.5	-0.4	0.00
FE88QH		987.5	124.4	1.26	944.0	101.1	1.11
FRVA9B		891.4	28.3	0.29	890.1	47.2	0.52
FWRXPH		781.7	-81.4	-0.82	762.7	-80.2	-0.88
GQ4BUC		803.5	-59.6	-0.60	750.1	-92.7	-1.02
GU4LQC		828.2	-34.9	-0.35	797.7	-45.1	-0.50
GWA36V		855.5	-7.6	-0.08	801.0	-41.9	-0.46
GWFW2T		956.0	92.9	0.94	902.5	59.6	0.65
H2GVRD		821.0	-42.1	-0.43	844.5	1.6	0.02
H7CPPF		917.0	53.9	0.55	921.5	78.6	0.86

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WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample A13-A14 Lab Mean	Diff from Grand Mean	CPV
H8H8MB		878.4	15.3	0.15	842.3	-0.6	-0.01
JWYEC7		971.3	108.2	1.10	846.2	3.3	0.04
K7UTUP		836.0	-27.1	-0.27	844.0	1.1	0.01
K9RV28		909.4	46.3	0.47	852.8	10.0	0.11
KEU8X4		734.5	-128.6	-1.30	679.5	-163.4	-1.79
KVHHK7		640.3	-222.7	-2.25	690.4	-152.5	-1.67
L6NJHC		755.2	-107.9	-1.09	742.9	-100.0	-1.10
LM8FY7	X	417.0	-446.1	-4.51	390.2	-452.7	-4.97
MT6R88		1,105.0	241.9	2.45	1,056.5	213.6	2.35
MVWNW2		715.0	-148.1	-1.50	669.0	-173.9	-1.91
N46EY6		800.2	-62.8	-0.64	751.8	-91.1	-1.00
N7GPAL		838.0	-25.1	-0.25	797.0	-45.9	-0.50
NPKZV6		860.8	-2.3	-0.02	837.6	-5.3	-0.06
NQWW2A		770.5	-92.6	-0.94	827.5	-15.4	-0.17
PJDTU8		887.6	24.6	0.25	852.1	9.2	0.10
PN9K26		1,047.0	183.9	1.86	1,002.0	159.1	1.75
QHF32X		938.8	75.7	0.77	946.4	103.5	1.14
R6L6C6		881.0	17.9	0.18	889.5	46.6	0.51
RA4XWK		944.0	80.9	0.82	910.5	67.6	0.74
RNWUP3		821.4	-41.6	-0.42	812.7	-30.1	-0.33
TL9JQW		664.5	-198.6	-2.01	697.5	-145.4	-1.60
TLPYJ6		783.5	-79.6	-0.81	839.2	-3.6	-0.04
TMGXX3		1,021.8	158.7	1.61	901.4	58.6	0.64
TQFAT3		862.3	-0.8	-0.01	892.0	49.1	0.54
UWX33F		1,013.5	150.4	1.52	1,002.0	159.1	1.75
V7KEWX	*	847.0	-16.1	-0.16	943.5	100.6	1.10
VCW4WU		1,045.4	182.3	1.84	966.1	123.2	1.35
VTWF7V		842.5	-20.6	-0.21	803.5	-39.4	-0.43
VWKR62		888.0	24.9	0.25	888.5	45.6	0.50
VXCNUU		889.5	26.4	0.27	867.5	24.6	0.27
VZU6MY		920.5	57.4	0.58	842.5	-0.4	0.00
W2689X		756.4	-106.7	-1.08	823.1	-19.8	-0.22
WEU4AW		924.1	61.0	0.62	882.7	39.9	0.44
WGJFA2		827.5	-35.6	-0.36	772.0	-70.9	-0.78
WGXYTY	X	492.4	-370.7	-3.75	518.5	-324.3	-3.56
WMP94X		835.5	-27.6	-0.28	842.5	-0.4	0.00
XJGG8C		844.0	-19.1	-0.19	870.5	27.6	0.30

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Rubber Interlaboratory Testing Program

Analysis 607

Stress at 300% Elongation (psi)

WebCode	Data Flag	Sample A11-A12 Lab Mean	Sample A11-A12 Diff from Grand Mean	Sample A11-A12 CPV	Sample A13-A14 Lab Mean	Sample A13-A14 Diff from Grand Mean	Sample A13-A14 CPV
XNZBPW		881.1	18.1	0.18	807.9	-35.0	-0.38
Y88ZFY	X	1,131.3	268.2	2.71	964.9	122.0	1.34
YB92FV		932.6	69.5	0.70	859.4	16.5	0.18
YHT4MY		673.0	-190.1	-1.92	639.5	-203.4	-2.23
YWNJMR		689.7	-173.4	-1.75	694.7	-148.1	-1.63
Z79CCU		909.5	46.4	0.47	920.5	77.6	0.85

Summary Statistics

	Sample A11-A12	Sample A13-A14
Grand Means	863.06 psi	842.86 psi
Stnd Dev Btwn Labs	98.83 psi	91.10 psi

Statistics based on 77 of 81 reporting participants

Summary Statistics in SI Units

	Sample A11-A12	Sample A13-A14
Grand Means	5.9505 MPa	5.81 MPa
Stnd Dev Btwn Labs	0.6814 MPa	0.63 MPa

Statistics based on 77 of 81 reporting participants

Samples A11-A12: Polyisoprene compound, batch #1 & A13-A14: Polyisoprene compound, batch #2

Comments on Assigned Data Flags for Test #607

7V68PK (X) - Data for all samples are low. Possible Systematic Error.

LM8FY7 (X) - Data for all samples are low. Possible Systematic Error.

WGXYTY (X) - Data for all samples are low. Possible Systematic Error.

Y88ZFY (X) - Inconsistent in testing between samples.

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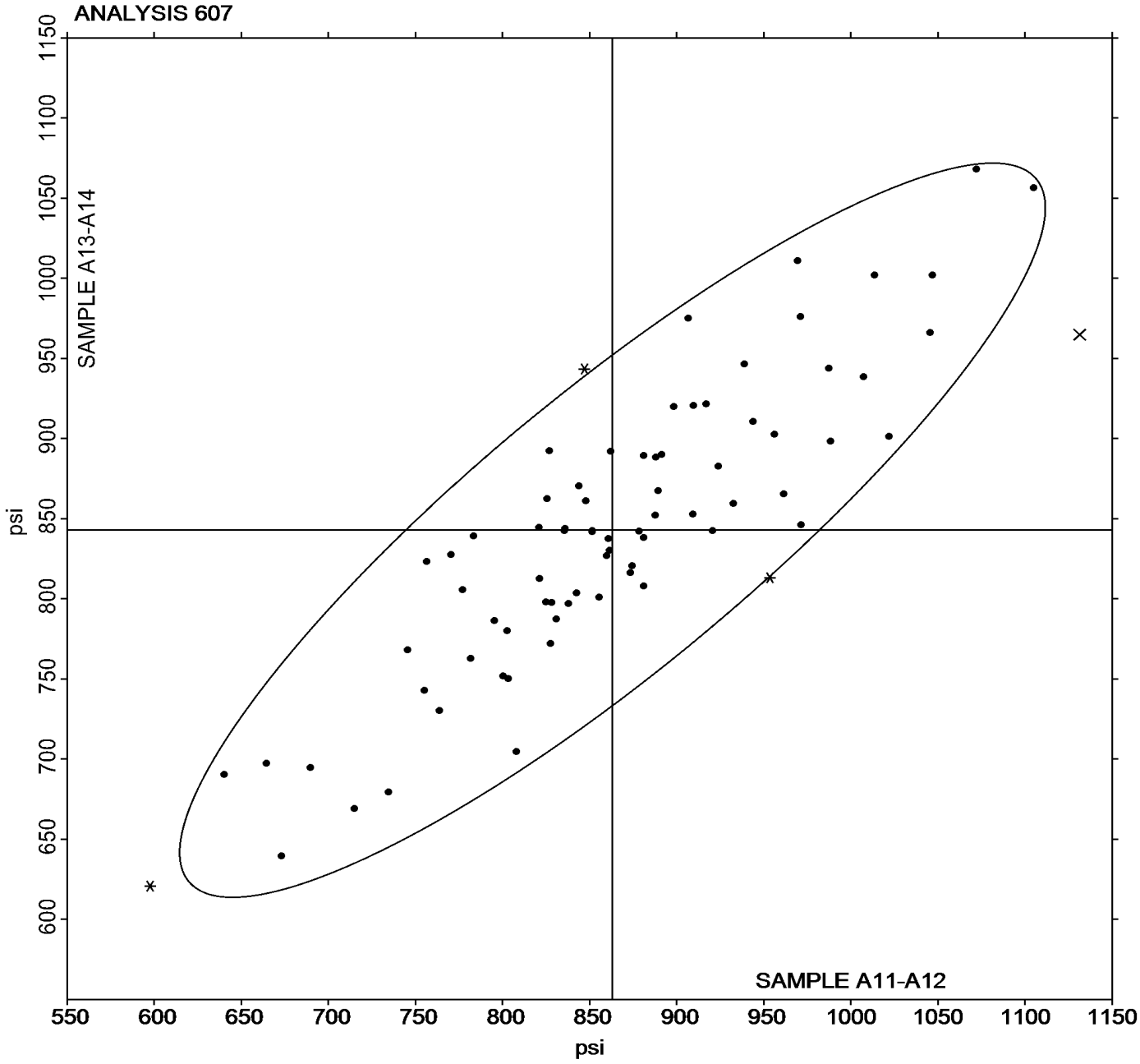
Grand Mean Sample **A11-A12** = 863.06 psi

Grand Mean Sample **A13-A14** = 842.86 psi



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WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample A13-A14 Lab Mean	Diff from Grand Mean	CPV
2CE67P		189.5	-5.9	-0.36	184.0	-9.1	-0.65
2EA6Y2		205.3	9.9	0.60	184.9	-8.2	-0.59
2K6NKX		194.5	-0.9	-0.06	199.0	5.9	0.42
3M7BDT		212.2	16.7	1.02	209.4	16.3	1.17
48AGFR		196.5	1.1	0.07	212.5	19.4	1.39
67W73L		177.8	-17.7	-1.08	190.1	-2.9	-0.21
68N3PU		199.0	3.5	0.22	203.2	10.1	0.72
69TXT6		204.0	8.6	0.52	207.0	13.9	0.99
6U3PDK		234.8	39.4	2.40	222.1	29.0	2.07
78J6UP		195.0	-0.4	-0.03	189.0	-4.1	-0.29
7V68PK		163.9	-31.5	-1.92	172.6	-20.5	-1.46
7XW73J		212.5	17.1	1.04	215.5	22.4	1.60
9274LQ		199.8	4.3	0.26	189.7	-3.4	-0.24
967EGQ		176.0	-19.4	-1.19	188.0	-5.1	-0.36
9A4VUK		202.0	6.5	0.40	199.3	6.2	0.44
A6MM7K		191.1	-4.3	-0.26	177.7	-15.4	-1.10
AAJEDG		200.0	4.6	0.28	189.5	-3.6	-0.25
ACE762		181.3	-14.1	-0.86	192.2	-0.9	-0.06
AEP6GM	X	252.4	56.9	3.47	234.2	41.2	2.94
AJKYEN		196.3	0.8	0.05	192.5	-0.6	-0.04
BYVZNK		156.6	-38.8	-2.37	163.2	-29.9	-2.13
CCWYBG		216.8	21.4	1.31	215.4	22.3	1.59
CEKBBM		170.0	-25.4	-1.55	167.7	-25.4	-1.81
CNR66E		189.5	-5.9	-0.36	192.0	-1.1	-0.08
CWMAXF		194.0	-1.4	-0.09	191.5	-1.6	-0.11
D8YUVH		198.3	2.9	0.18	190.0	-3.1	-0.22
DN8NPC		196.8	1.4	0.09	190.8	-2.3	-0.16
DXA9PJ		178.0	-17.4	-1.06	190.0	-3.1	-0.22
DYXKAX		187.0	-8.4	-0.51	177.5	-15.6	-1.11
F7XFMF		208.5	13.1	0.80	199.0	5.9	0.42
FE88QH		225.0	29.6	1.80	208.0	14.9	1.07
FRVA9B		206.3	10.8	0.66	206.6	13.5	0.96
FWRXPH		181.0	-14.5	-0.88	179.2	-13.9	-0.99
GQ4BUC		179.8	-15.6	-0.95	174.7	-18.4	-1.31
GU4LQC		197.3	1.8	0.11	190.7	-2.3	-0.17
GWA36V		192.5	-2.9	-0.18	189.5	-3.6	-0.25
GWFW2T		211.5	16.1	0.98	197.5	4.4	0.32

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WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample A13-A14 Lab Mean	Diff from Grand Mean	CPV
H2GVRD		186.0	-9.4	-0.58	185.5	-7.6	-0.54
H7CPPF		199.0	3.6	0.22	192.0	-1.1	-0.08
H8H8MB		222.9	27.5	1.68	212.0	18.9	1.35
JWYEC7		209.8	14.4	0.88	187.3	-5.8	-0.41
K7UTUP		194.0	-1.4	-0.09	199.0	5.9	0.42
K9RV28		190.7	-4.7	-0.29	179.8	-13.2	-0.94
KEU8X4		187.0	-8.4	-0.51	179.0	-14.1	-1.00
KVHHK7		168.2	-27.2	-1.66	177.7	-15.4	-1.10
L6NJHC		174.3	-21.2	-1.29	170.9	-22.2	-1.59
LM8FY7	X	137.8	-57.6	-3.52	129.8	-63.3	-4.51
MT6R88		221.0	25.6	1.56	209.0	15.9	1.14
MVWNW2		176.5	-18.9	-1.16	163.5	-29.6	-2.11
N46EY6		185.8	-9.6	-0.59	180.8	-12.3	-0.88
N7GPAL		199.5	4.1	0.25	192.0	-1.1	-0.08
NPKZV6		194.4	-1.1	-0.07	190.7	-2.3	-0.17
NQWW2A		176.5	-18.9	-1.16	195.0	1.9	0.14
PJDTU8		211.0	15.6	0.95	200.9	7.8	0.56
PN9K26		201.5	6.1	0.37	198.0	4.9	0.35
PR8XM9		175.5	-19.9	-1.22	195.5	2.4	0.17
QHF32X		207.9	12.5	0.76	208.7	15.6	1.11
R6L6C6		204.5	9.1	0.55	210.5	17.4	1.24
RA4XWK		210.0	14.6	0.89	208.0	14.9	1.07
RNWUP3		191.0	-4.4	-0.27	190.0	-3.1	-0.22
TL9JQW		166.5	-28.9	-1.77	170.0	-23.1	-1.65
TLPYJ6		192.8	-2.7	-0.16	201.2	8.1	0.58
TMGXX3	*	227.0	31.6	1.92	200.9	7.8	0.56
TQFAT3		194.4	-1.1	-0.07	203.1	10.0	0.71
UWX33F		228.0	32.6	1.99	218.5	25.4	1.81
V7KEWX	*	201.0	5.6	0.34	219.5	26.4	1.89
VCW4WU	X	283.3	87.9	5.36	265.8	72.7	5.19
VTWF7V		187.0	-8.4	-0.51	179.0	-14.1	-1.00
VWKR62		193.5	-1.9	-0.12	199.0	5.9	0.42
VXCNUU		207.0	11.6	0.71	205.0	11.9	0.85
VZU6MY		198.0	2.6	0.16	184.5	-8.6	-0.61
W2689X		171.9	-23.6	-1.44	187.1	-6.0	-0.43
WEU4AW		228.5	33.1	2.02	218.9	25.8	1.84
WGJFA2		187.5	-7.9	-0.48	180.0	-13.1	-0.93
WGXYTY	X	116.0	-79.4	-4.84	123.3	-69.8	-4.98

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WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample A13-A14 Lab Mean	Diff from Grand Mean	CPV
WMP94X		194.0	-1.4	-0.09	195.0	1.9	0.14
XJGG8C		182.0	-13.4	-0.82	190.5	-2.6	-0.18
XNZBPW		208.4	12.9	0.79	189.9	-3.2	-0.23
Y88ZFY	X	243.7	48.3	2.95	208.6	15.5	1.11
YB92FV		206.7	11.2	0.69	191.5	-1.6	-0.12
YHT4MY		166.5	-28.9	-1.77	161.0	-32.1	-2.29
YWNJMR	X	126.2	-69.2	-4.22	126.2	-66.9	-4.77
Z79CCU		200.5	5.1	0.31	205.0	11.9	0.85

Summary Statistics

	Sample A11-A12	Sample A13-A14
Grand Means	195.43 psi	193.07 psi
Stnd Dev Btwn Labs	16.39 psi	14.01 psi

Statistics based on 77 of 83 reporting participants

Summary Statistics in SI Units

	Sample A11-A12	Sample A13-A14
Grand Means	1.3474 MPa	1.33 MPa
Stnd Dev Btwn Labs	0.1130 MPa	0.10 MPa

Statistics based on 77 of 83 reporting participants

Samples A11-A12: Polyisoprene compound, batch #1 & A13-A14: Polyisoprene compound, batch #2

Comments on Assigned Data Flags for Test #608

AEP6GM (X) - Data for all samples are high. Possible Systematic Error. Inconsistent within the determinations of sample group A13-A14.

LM8FY7 (X) - Data for all samples are low. Possible Systematic Error.

VCW4WU (X) - Data for all samples are high. Possible Systematic Error.

WGXYTY (X) - Data for all samples are low. Possible Systematic Error.

Y88ZFY (X) - Data for sample group A11-A12 are high.

YWNJMR (X) - Data for all samples are low. Possible Systematic Error.

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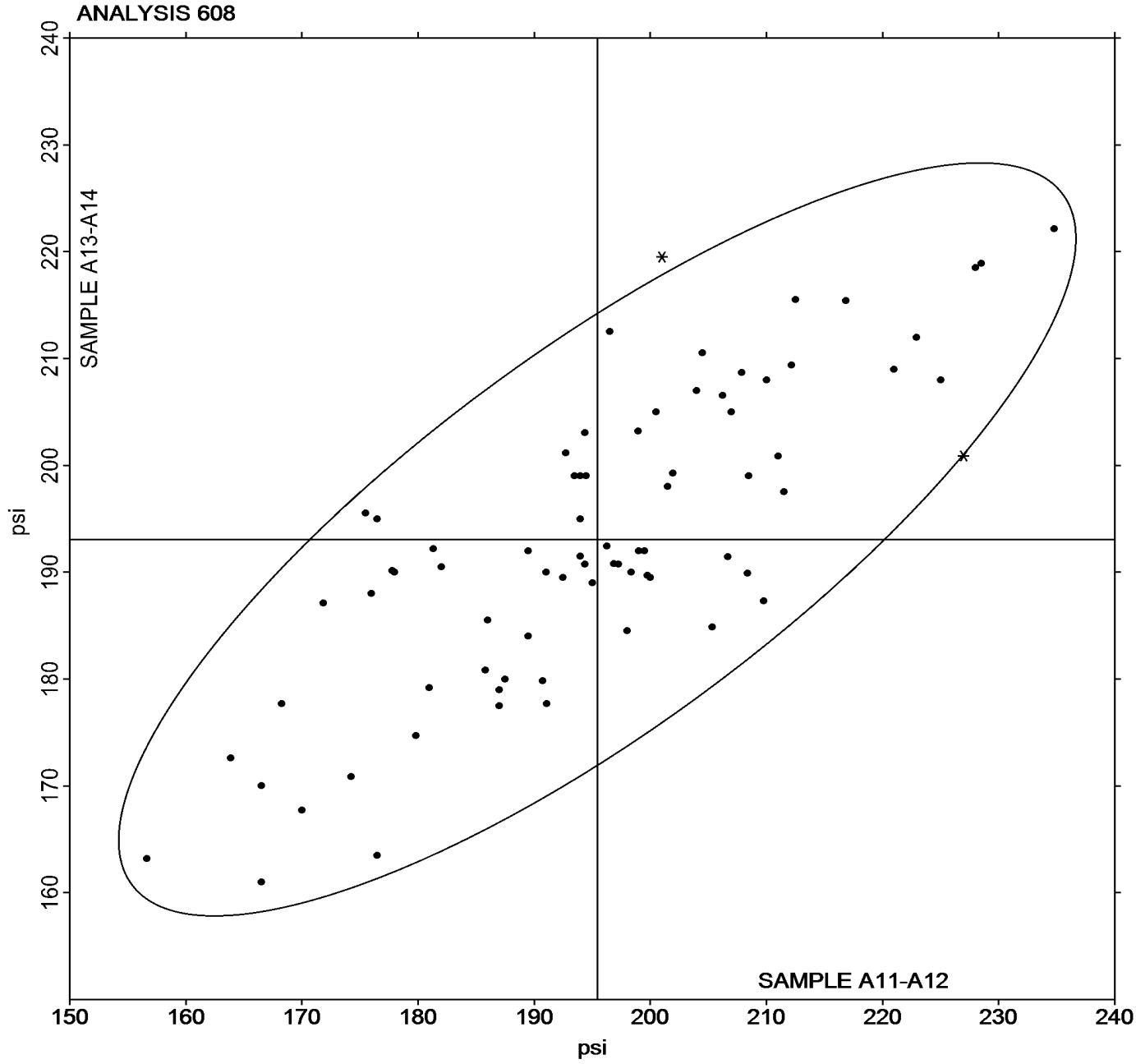
Grand Mean Sample **A11-A12** = 195.43 psi

Grand Mean Sample **A13-A14** = 193.07 psi



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WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample A13-A14 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2CE67P		50.00	1.59	0.78	50.00	1.52	0.72	HH
2EA6Y2		51.25	2.84	1.40	51.25	2.77	1.32	HH
2K6NKX		49.50	1.09	0.54	51.00	2.52	1.20	BT
3BDRYM		46.00	-2.41	-1.19	45.50	-2.98	-1.43	BT
3M7BDT		48.00	-0.41	-0.20	48.00	-0.48	-0.23	HH
48AGFR		50.25	1.84	0.91	51.15	2.67	1.27	BT
67W73L		50.30	1.89	0.93	50.50	2.02	0.96	BT
68N3PU		49.00	0.59	0.29	49.55	1.07	0.51	BT
69TXT6		51.50	3.09	1.53	52.50	4.02	1.92	BT
6U3PDK		50.00	1.59	0.78	50.00	1.52	0.72	HH
78J6UP		50.00	1.59	0.78	49.50	1.02	0.49	BT
7V68PK		47.75	-0.66	-0.33	48.00	-0.48	-0.23	HH
7XW73J		46.50	-1.91	-0.94	45.50	-2.98	-1.43	BT
9274LQ		45.00	-3.41	-1.69	45.50	-2.98	-1.43	HH
967EGQ		47.50	-0.91	-0.45	48.50	0.02	0.01	HH
9A4VUK		46.00	-2.41	-1.19	45.50	-2.98	-1.43	BT
A6MM7K		45.00	-3.41	-1.69	44.50	-3.98	-1.90	HH
AAJEDG		49.00	0.59	0.29	48.00	-0.48	-0.23	BT
ACE762	*	46.25	-2.16	-1.07	48.55	0.07	0.03	BT
AEP6GM		47.05	-1.36	-0.67	46.05	-2.43	-1.16	BT
AJKYEN		46.00	-2.41	-1.19	45.45	-3.03	-1.45	BT
ARD8YF		47.00	-1.41	-0.70	46.00	-2.48	-1.19	HH
BJZHYL		45.50	-2.91	-1.44	45.00	-3.48	-1.66	BT
BYVZNK		47.00	-1.41	-0.70	47.50	-0.98	-0.47	BT
CCWYBG		46.45	-1.96	-0.97	46.80	-1.68	-0.80	BT
CEKBBM		45.00	-3.41	-1.69	45.50	-2.98	-1.43	BT
CNR66E		47.50	-0.91	-0.45	47.50	-0.98	-0.47	BT
CWMAXF		52.80	4.39	2.17	53.45	4.97	2.37	XX
D8KBBK	X	43.00	-5.41	-2.67	45.00	-3.48	-1.66	BT
D8YUVH		46.85	-1.56	-0.77	46.80	-1.68	-0.80	BT
DN8NPC		49.10	0.69	0.34	49.30	0.82	0.39	BT
DXA9PJ		50.00	1.59	0.78	51.00	2.52	1.20	HH
DYXKAX	*	48.55	0.14	0.07	46.60	-1.88	-0.90	BT
F7XFMF		48.00	-0.41	-0.20	48.00	-0.48	-0.23	BT
FE88QH	*	53.50	5.09	2.51	53.55	5.07	2.42	BT
FRVA9B		49.20	0.79	0.39	48.60	0.12	0.06	BT
GLN37D		50.50	2.09	1.03	50.50	2.02	0.96	HH
GNRXPF	*	43.00	-5.41	-2.67	43.00	-5.48	-2.62	BT

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WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample A13-A14 Lab Mean	Diff from Grand Mean	CPV	Instr Code
GQ4BUC		47.00	-1.41	-0.70	47.50	-0.98	-0.47	BT
GU4LQC		48.00	-0.41	-0.20	47.50	-0.98	-0.47	HH
GWA36V	*	54.10	5.69	2.81	53.30	4.82	2.30	BT
GWFW2T		50.80	2.39	1.18	51.25	2.77	1.32	BT
H2GVRD		48.50	0.09	0.04	49.00	0.52	0.25	HH
H4NDPA		49.30	0.89	0.44	49.25	0.77	0.37	XX
H7CPPF		50.20	1.79	0.88	50.00	1.52	0.72	HH
H8H8MB		47.00	-1.41	-0.70	47.00	-1.48	-0.71	HH
JWYEC7		47.75	-0.66	-0.33	47.00	-1.48	-0.71	HH
K7UTUP		47.90	-0.51	-0.25	49.65	1.17	0.56	BT
K9RV28		49.00	0.59	0.29	50.00	1.52	0.72	HH
KEU8X4		50.00	1.59	0.78	50.00	1.52	0.72	BT
KVHHK7		50.10	1.69	0.83	50.75	2.27	1.08	BT
L6NJHC		47.85	-0.56	-0.28	47.95	-0.53	-0.26	BT
LF7439		47.00	-1.41	-0.70	48.00	-0.48	-0.23	BT
LM8FY7		46.50	-1.91	-0.94	47.00	-1.48	-0.71	BT
MJWXXM		46.50	-1.91	-0.94	47.00	-1.48	-0.71	BT
MT6R88		46.00	-2.41	-1.19	45.90	-2.58	-1.23	BT
MVWNW2		48.00	-0.41	-0.20	48.00	-0.48	-0.23	BT
N46EY6		49.50	1.09	0.54	49.75	1.27	0.60	HH
N7GPAL		49.50	1.09	0.54	49.00	0.52	0.25	HH
NPKZV6		47.00	-1.41	-0.70	47.00	-1.48	-0.71	BT
NQWW2A		49.05	0.64	0.32	49.50	1.02	0.49	BT
PJDTU8		48.80	0.39	0.19	47.25	-1.23	-0.59	BT
PN9K26		48.95	0.54	0.27	48.20	-0.28	-0.14	BT
PR8XM9		48.35	-0.06	-0.03	48.15	-0.33	-0.16	BT
QHF32X		50.50	2.09	1.03	49.50	1.02	0.49	BT
R6L6C6		48.50	0.09	0.04	48.00	-0.48	-0.23	BT
RA4XWK		49.50	1.09	0.54	49.50	1.02	0.49	BT
RNWUP3		45.50	-2.91	-1.44	45.55	-2.93	-1.40	BT
TL9JQW		47.40	-1.01	-0.50	46.45	-2.03	-0.97	BT
TLPYJ6		47.50	-0.91	-0.45	49.00	0.52	0.25	HH
TMGXX3		51.30	2.89	1.43	50.60	2.12	1.01	BT
TQFAT3	*	48.45	0.04	0.02	50.50	2.02	0.96	BT
UWX33F		49.00	0.59	0.29	48.00	-0.48	-0.23	HH
V7KEWX	*	45.40	-3.01	-1.49	47.25	-1.23	-0.59	BT
VCW4WU		50.00	1.59	0.78	50.00	1.52	0.72	HH

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WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample A13-A14 Lab Mean	Diff from Grand Mean	CPV	Instr Code
VTWF7V		50.00	1.59	0.78	50.00	1.52	0.72	HH
VWKR62		46.50	-1.91	-0.94	48.00	-0.48	-0.23	BT
VXCNUU		49.00	0.59	0.29	49.00	0.52	0.25	BT
VZU6MY		52.00	3.59	1.77	51.50	3.02	1.44	HH
W2689X		49.60	1.19	0.59	50.00	1.52	0.72	BT
WEU4AW		51.25	2.84	1.40	51.75	3.27	1.56	HH
WGJFA2		46.25	-2.16	-1.07	46.35	-2.13	-1.02	BT
WGXYTY		50.00	1.59	0.78	50.00	1.52	0.72	HH
WMP94X		50.20	1.79	0.88	50.20	1.72	0.82	BT
XJGG8C		49.00	0.59	0.29	49.50	1.02	0.49	BT
XNZBPW	X	59.00	10.59	5.23	58.50	10.02	4.78	BT
Y88ZFY		48.50	0.09	0.04	47.50	-0.98	-0.47	BT
YB92FV		48.85	0.44	0.22	47.80	-0.68	-0.33	BT
YHT4MY		49.00	0.59	0.29	48.00	-0.48	-0.23	HH
YWNJMR		47.50	-0.91	-0.45	48.00	-0.48	-0.23	BT
Z79CCU		47.00	-1.41	-0.70	47.50	-0.98	-0.47	BT
ZTJDLR		44.95	-3.46	-1.71	45.65	-2.83	-1.35	XX

Summary Statistics

	Sample A11-A12	Sample A13-A14
Grand Means	48.412 Type A	48.484 Type A
Stnd Dev Btwn Labs	2.024 Type A	2.093 Type A

Statistics based on 90 of 92 reporting participants

Samples A11-A12: Polyisoprene compound, batch #1 & A13-A14: Polyisoprene compound, batch #2

Comments on Assigned Data Flags for Test #620

D8KBBK (X) - Inconsistent in testing between samples.

XNZBPW (X) - Data for all samples are high. Possible Systematic Error.

Key to Instrument Codes Reported by Participants

BT	Benchtop	HH	Handheld
XX	Specify Benchtop or Handheld Instrument		

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Results by Reading Time (as reported by laboratory)

	Sample A11-A12 *Polyisoprene compound, batch #1*			Sample A13-A14 *Polyisoprene compound, batch #2*				
Reading Time	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	Labs Incl	/ Rpt
Select from list below	48.88	5.55	0.46	49.55	5.52	1.07	2	2
Readings taken within 0 - 5 seconds	48.70	1.61	0.28	48.76	1.72	0.27	54	58
Readings taken at 5 seconds	46.53	0.79	-1.89	46.12	0.63	-2.37	8	9
Readings taken after 5+ seconds	47.08	1.59	-1.33	47.08	1.53	-1.40	6	8
Maximum hardness indicator used	48.91	1.61	0.50	49.03	1.66	0.54	13	15

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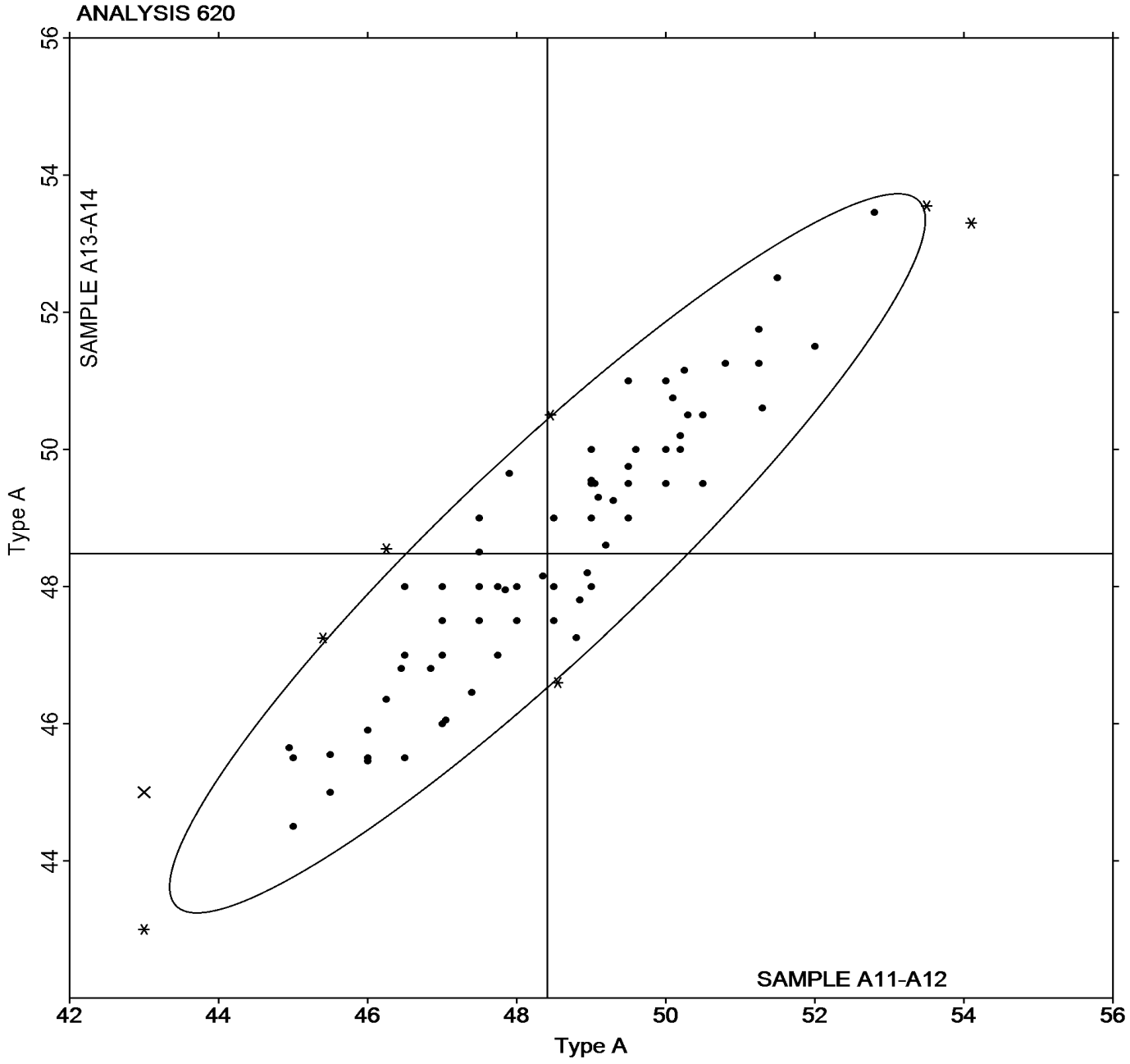
Grand Mean Sample **A11-A12** = 48.412 Type A

Grand Mean Sample **A13-A14** = 48.484 Type A



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WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample A13-A14 Lab Mean	Diff from Grand Mean	CPV
2CE67P		1.128	-0.005	-1.53	1.131	-0.002	-0.69
2K6NKX		1.135	0.002	0.43	1.133	-0.001	-0.28
3M7BDT		1.129	-0.004	-1.14	1.128	-0.005	-1.89
48AGFR		1.131	-0.002	-0.61	1.132	-0.002	-0.60
67W73L		1.135	0.002	0.65	1.135	0.002	0.71
68N3PU		1.131	-0.002	-0.58	1.132	-0.001	-0.54
69TXT6		1.135	0.002	0.58	1.135	0.001	0.46
6U3PDK		1.135	0.002	0.58	1.135	0.002	0.65
78J6UP		1.134	0.001	0.29	1.133	0.000	-0.08
7XW73J		1.128	-0.005	-1.57	1.130	-0.003	-1.22
9274LQ	X	1.127	-0.006	-1.86	1.117	-0.016	-6.06
967EGQ		1.135	0.002	0.49	1.135	0.002	0.63
9A4VUK		1.135	0.002	0.70	1.135	0.001	0.48
A6MM7K		1.133	0.000	-0.14	1.132	-0.001	-0.47
AEP6GM	X	1.123	-0.010	-2.73	1.136	0.003	1.15
AJKYEN		1.132	-0.001	-0.43	1.134	0.001	0.28
ARD8YF		1.134	0.001	0.33	1.136	0.002	0.85
CEKBBM		1.131	-0.002	-0.71	1.131	-0.003	-1.03
CWMAXF		1.135	0.002	0.58	1.135	0.002	0.65
D8YUVH		1.127	-0.006	-1.83	1.130	-0.003	-1.10
DN8NPC		1.133	0.000	0.00	1.135	0.001	0.46
DXA9PJ		1.134	0.001	0.15	1.136	0.003	0.98
DYXKAX		1.139	0.006	1.78	1.137	0.004	1.32
F7XFMF		1.133	0.000	0.07	1.134	0.000	0.09
GQ4BUC	*	1.125	-0.008	-2.29	1.130	-0.003	-1.22
GWA36V		1.132	-0.001	-0.20	1.136	0.003	1.12
GWFW2T	X	1.123	-0.010	-3.00	1.119	-0.014	-5.32
H2GVRD		1.128	-0.005	-1.43	1.129	-0.004	-1.59
H4NDPA	X	1.123	-0.010	-2.86	1.121	-0.012	-4.57
H7CPPF		1.133	0.000	-0.07	1.134	0.000	0.13
H8H8MB		1.135	0.002	0.65	1.135	0.002	0.61
K9RV28		1.129	-0.004	-1.14	1.131	-0.003	-1.03
KEU8X4		1.135	0.002	0.60	1.135	0.001	0.48
KVHHK7	*	1.137	0.004	1.01	1.132	-0.002	-0.66
L6NJHC		1.139	0.006	1.66	1.139	0.005	2.03
LF7439		1.129	-0.004	-1.14	1.130	-0.003	-1.22
LM8FY7	X	1.133	0.000	-0.14	1.125	-0.009	-3.27

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WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample A13-A14 Lab Mean	Diff from Grand Mean	CPV
MJWXXM	X	1.122	-0.011	-3.15	1.129	-0.005	-1.77
MVWNW2		1.135	0.002	0.69	1.135	0.001	0.54
N46EY6		1.133	0.000	-0.14	1.132	-0.002	-0.66
N7GPAL		1.136	0.003	0.86	1.137	0.003	1.21
NPKZV6		1.132	-0.001	-0.28	1.133	0.000	-0.10
NQWW2A		1.129	-0.004	-1.11	1.131	-0.003	-0.95
PJDTU8		1.131	-0.002	-0.50	1.131	-0.003	-1.03
PN9K26		1.136	0.003	0.93	1.136	0.002	0.91
PR8XM9		1.139	0.006	1.58	1.139	0.006	2.14
RA4XWK		1.133	0.000	-0.10	1.134	0.001	0.28
TL9JQW		1.140	0.007	1.86	1.138	0.005	1.77
TLPYJ6	X	1.122	-0.011	-3.02	1.123	-0.010	-3.81
TMGXX3		1.129	-0.004	-1.14	1.132	-0.001	-0.47
TQFAT3		1.134	0.001	0.29	1.134	0.000	0.09
UWX33F		1.138	0.005	1.46	1.135	0.002	0.59
V7KEWX		1.131	-0.002	-0.71	1.129	-0.004	-1.55
VCW4WU		1.136	0.003	0.72	1.135	0.001	0.46
VTWF7V	X	1.139	0.006	1.85	1.128	-0.005	-1.94
VXCNUU		1.125	-0.008	-2.23	1.128	-0.005	-1.85
VZU6MY		1.140	0.007	1.91	1.139	0.006	2.31
WEU4AW		1.132	-0.001	-0.31	1.131	-0.002	-0.84
WMP94X		1.134	0.001	0.29	1.134	0.001	0.28
XJGG8C		1.135	0.002	0.58	1.133	-0.001	-0.28
XNZBPW		1.132	-0.001	-0.18	1.132	-0.001	-0.32
Y88ZFY		1.135	0.002	0.52	1.135	0.002	0.65
YHT4MY		1.132	-0.001	-0.43	1.131	-0.003	-1.03
YWNJMR		1.132	-0.001	-0.28	1.132	-0.001	-0.47

Summary Statistics

	Sample A11-A12		Sample A13-A14	
Grand Means	1.1330	g/cm^3 (Mg/m^3)	1.1333	g/cm^3 (Mg/m^3)
Stnd Dev Btwn Labs	0.0035	g/cm^3 (Mg/m^3)	0.0027	g/cm^3 (Mg/m^3)

Statistics based on 56 of 64 reporting participants

Samples A11-A12: Polyisoprene compound, batch #1 & A13-A14: Polyisoprene compound, batch #2

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Comments on Assigned Data Flags for Test #621

9274LQ (X) - Data for sample group A13-A14 are low. Inconsistent within the determinations of both sample groups.

AEP6GM (X) - Data for sample group A11-A12 are low. Inconsistent within the determinations of sample group A13-A14.

GWFW2T (X) - Data for all samples are low.

H4NDPA (X) - Data for all samples are low. Inconsistent within the determinations of sample group A11-A12.

LM8FY7 (X) - Data for sample group A13-A14 are low. Inconsistent within the determinations of sample group A13-A14.

MJWXXM (X) - Data for sample group A11-A12 are low. Inconsistent within the determinations of sample group A13-A14.

TLPYJ6 (X) - Data for all samples are low.

VTWF7V (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample group A13-A14.

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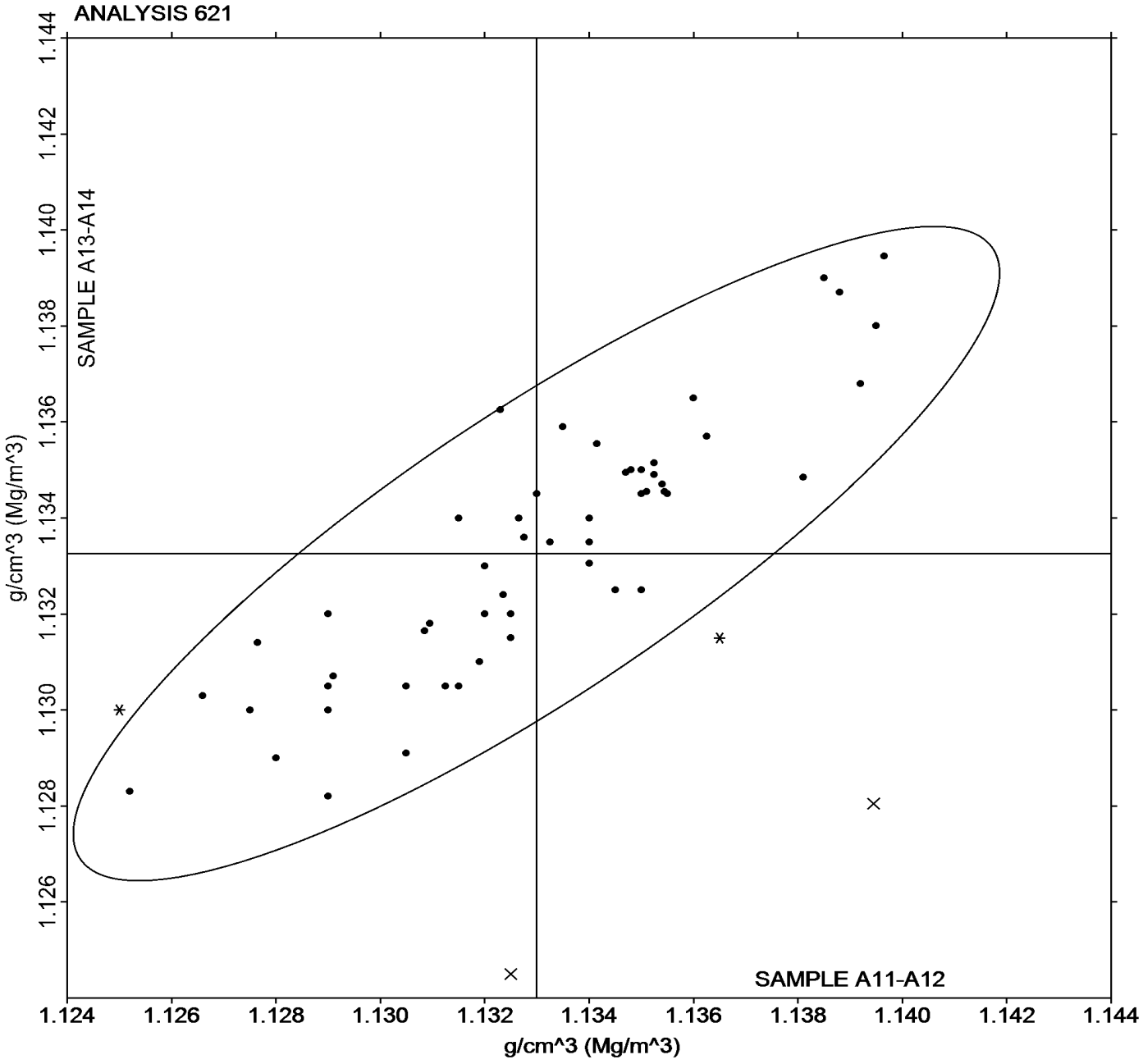
Grand Mean Sample **A11-A12** = 1.1330 g/cm^3 (Mg/m^3)

Grand Mean Sample **A13-A14** = 1.1333 g/cm^3 (Mg/m^3)



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WebCode	Data Flag	Sample HA11-HA12 Lab Mean	Diff from Grand Mean	CPV	Sample HA13-HA14 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2FDG3P		57.50	4.25	1.40	70.50	3.37	1.23	BT
4UDDW7		55.00	1.75	0.58	67.50	0.37	0.13	BT
4WQ2CP		51.50	-1.75	-0.58	66.50	-0.63	-0.23	BT
69TXT6		54.50	1.25	0.41	68.00	0.87	0.32	BT
7XW73J		52.00	-1.25	-0.41	65.00	-2.13	-0.78	XX
C8Z84K		55.95	2.70	0.89	67.85	0.72	0.26	BT
CCWYBG		54.50	1.25	0.41	67.60	0.47	0.17	BT
CEKBBM		47.00	-6.25	-2.07	61.00	-6.13	-2.24	BT
D6WYCE		51.50	-1.75	-0.58	66.60	-0.53	-0.19	BT
GQ4BUC		48.00	-5.25	-1.74	63.00	-4.13	-1.51	BT
HGNE3B		55.50	2.25	0.74	71.00	3.87	1.42	BT
HH4BVA		51.00	-2.25	-0.74	65.50	-1.63	-0.60	HH
HXX3FB		52.00	-1.25	-0.41	63.25	-3.88	-1.42	HH
K9RV28		51.50	-1.75	-0.58	67.00	-0.13	-0.05	HH
L6NJHC		53.00	-0.25	-0.08	67.00	-0.13	-0.05	BT
MJWXXM		49.00	-4.25	-1.41	63.50	-3.63	-1.33	BT
NA9LE8		54.50	1.25	0.41	68.25	1.12	0.41	HH
QHF32X		54.00	0.75	0.25	68.00	0.87	0.32	XX
R6L6C6		59.60	6.35	2.10	72.50	5.37	1.96	BT
T7W8X4		55.00	1.75	0.58	67.00	-0.13	-0.05	HH
TNRXUX		50.50	-2.75	-0.91	65.00	-2.13	-0.78	BT
UWX33F		56.00	2.75	0.91	72.00	4.87	1.78	HH
VZU6MY		57.00	3.75	1.24	70.50	3.37	1.23	HH
W66H4X		57.30	4.05	1.34	68.85	1.72	0.63	HH
WRJ32Y		53.50	0.25	0.08	66.50	-0.63	-0.23	BT
WX7TMU		50.00	-3.25	-1.08	66.00	-1.13	-0.41	HH
YB92FV		51.55	-1.70	-0.56	66.95	-0.18	-0.07	BT
YHT4MY		55.50	2.25	0.74	70.00	2.87	1.05	HH
ZV8PKW		50.45	-2.80	-0.93	64.50	-2.63	-0.96	BT

Summary Statistics

	Sample HA11-HA12	Sample HA13-HA14
Grand Means	53.253 Type D	67.133 Type D
Stnd Dev Btwn Labs	3.025 Type D	2.732 Type D

Statistics based on 29 of 29 reporting participants

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Samples HA11-HA12: Hardness Disc, batch #1 & HA13-HA14: Hardness Disc, batch #2

Key to Instrument Codes Reported by Participants

BT	Benchtop	HH	Handheld
XX	Specify Benchtop or Handheld Instrument		

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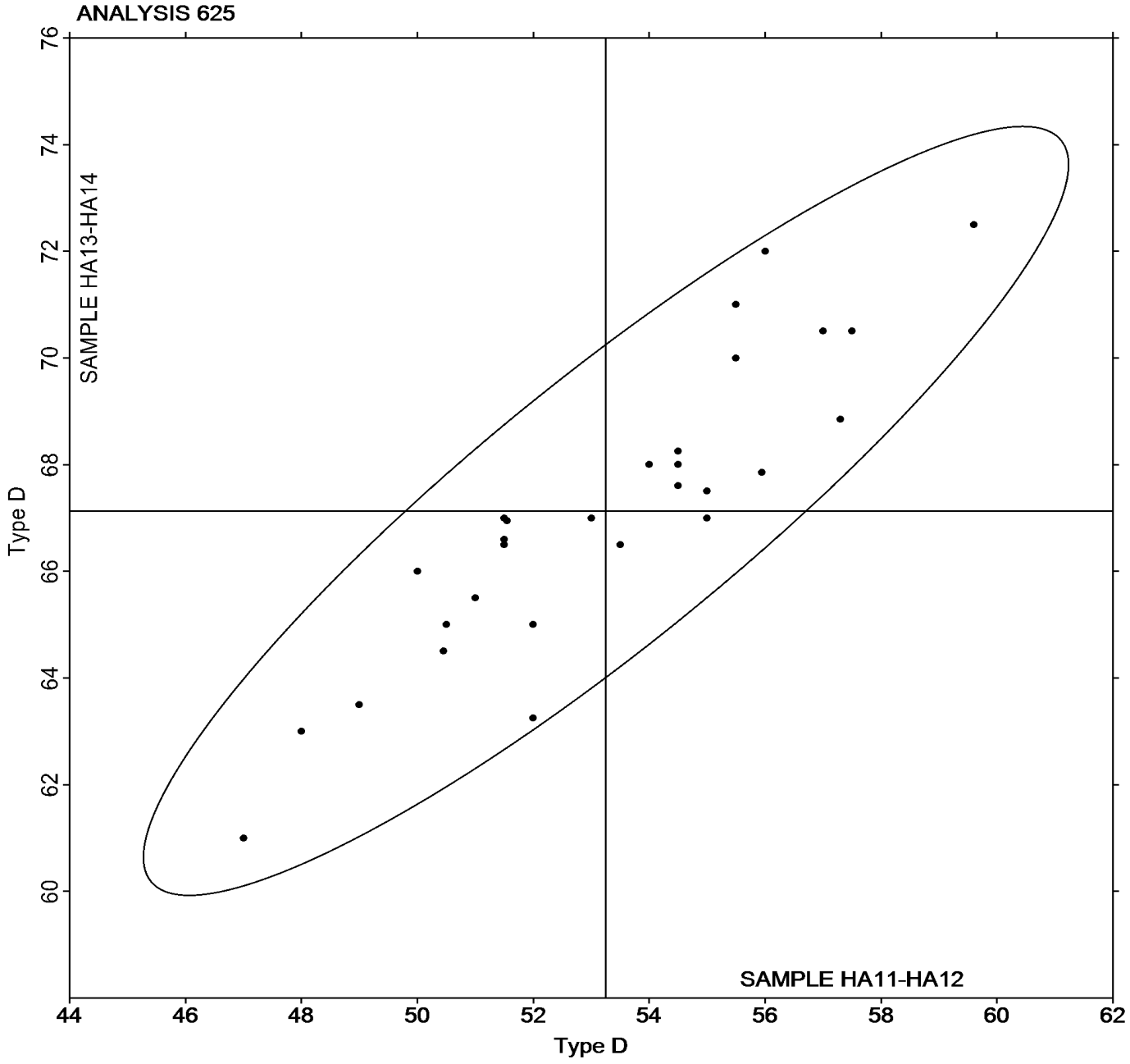
Grand Mean Sample **HA11-HA12** = 53.253 Type D

Grand Mean Sample **HA13-HA14** = 67.133 Type D



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WebCode	Data Flag	Sample A11-A12 Lab Mean	Diff from Grand Mean	CPV	Sample J11-J12 Lab Mean	Diff from Grand Mean	CPV
2K6NKX		3,356.5	15.8	0.12	3,228.0	33.7	0.25
3M7BDT		3,179.7	-161.0	-1.20	3,200.3	5.9	0.04
67W73L		3,310.9	-29.9	-0.22	3,156.7	-37.6	-0.28
68N3PU		3,428.1	87.4	0.65	3,391.4	197.0	1.48
7XW73J		3,410.0	69.3	0.51	3,164.5	-29.8	-0.22
9274LQ		3,364.5	23.8	0.18	3,180.4	-13.9	-0.10
967EGQ		3,476.9	136.1	1.01	3,383.7	189.3	1.42
9A4VUK		3,339.0	-1.7	-0.01	3,076.4	-118.0	-0.88
AAJEDG		3,403.0	62.3	0.46	3,247.5	53.2	0.40
CWMAXF		3,338.0	-2.7	-0.02	3,058.0	-136.3	-1.02
D8YUVH		3,604.9	264.2	1.96	3,375.1	180.8	1.35
DYXKAX		3,507.0	166.3	1.24	3,351.5	157.2	1.18
FRVA9B		3,165.7	-175.0	-1.30	3,129.7	-64.6	-0.48
FWRXPH		3,160.4	-180.3	-1.34	3,128.9	-65.5	-0.49
GU4LQC	*	3,131.4	-209.3	-1.56	2,771.7	-422.6	-3.16
GWFW2T		3,277.0	-63.7	-0.47	3,107.5	-86.8	-0.65
H7CPPF		3,387.0	46.3	0.34	3,042.5	-151.8	-1.14
H8H8MB		3,149.0	-191.7	-1.42	3,055.0	-139.3	-1.04
L6NJHC		3,153.4	-187.3	-1.39	3,125.0	-69.3	-0.52
N46EY6		3,450.7	110.0	0.82	3,337.6	143.2	1.07
N7GPAL		3,555.0	214.3	1.59	3,370.0	175.7	1.32
PN9K26		3,401.5	60.8	0.45	3,162.5	-31.8	-0.24
RA4XWK		3,334.5	-6.2	-0.05	3,276.0	81.7	0.61
TL9JQW		3,137.5	-203.2	-1.51	3,193.0	-1.3	-0.01
TLPYJ6		3,243.9	-96.9	-0.72	3,271.3	77.0	0.58
TQFAT3		3,458.5	117.7	0.88	3,244.5	50.2	0.38
WEU4AW		3,472.9	132.2	0.98	3,185.8	-8.6	-0.06
YB92FV		3,343.1	2.4	0.02	3,227.1	32.8	0.25

Summary Statistics

	Sample A11-A12	Sample J11-J12
Grand Means	3,340.71 psi	3,194.34 psi
Stnd Dev Btwn Labs	134.54 psi	133.55 psi

Statistics based on 28 of 28 reporting participants

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Summary Statistics in SI Units		
Grand Means	23.033 MPa	22.02 MPa
Stnd Dev Btwn Labs	0.928 MPa	0.92 MPa

Statistics based on 28 of 28 reporting participants

Samples A11-A12: Polyisoprene compound, batch #1 & J11-J12: Polyisoprene compound, batch #1

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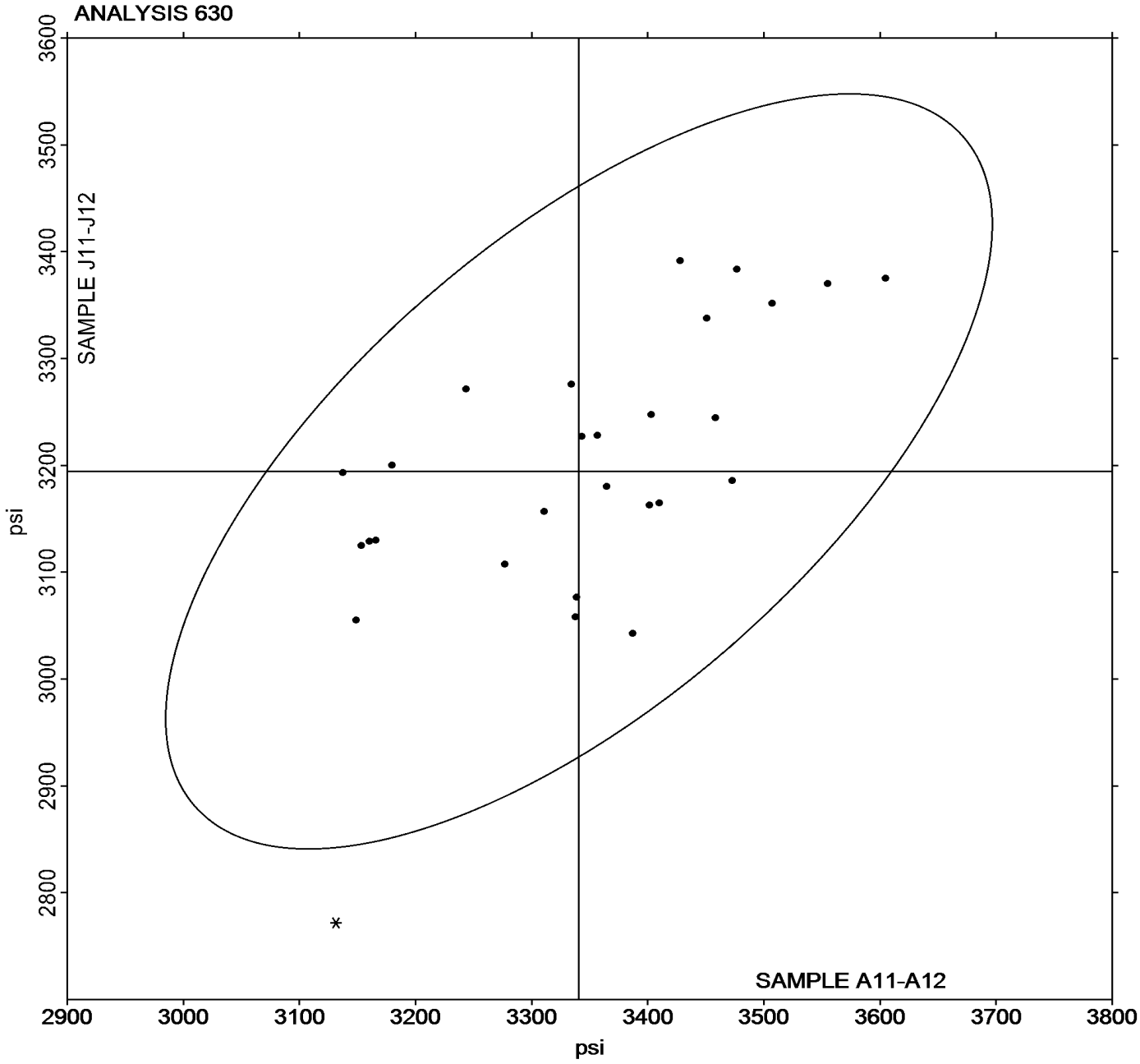
Grand Mean Sample **A11-A12** = 3,340.71 psi

Grand Mean Sample **J11-J12** = 3,194.34 psi



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WebCode	Data Flag	Sample A11-A12 Lab Mean	Sample A11-A12 Diff from Grand Mean	Sample A11-A12 CPV	Sample J11-J12 Lab Mean	Sample J11-J12 Diff from Grand Mean	Sample J11-J12 CPV
2K6NKX	*	560.5	-84.7	-1.93	580.5	-6.4	-0.20
3M7BDT		552.2	-93.0	-2.12	540.5	-46.4	-1.47
67W73L		652.0	6.8	0.15	564.0	-22.9	-0.72
68N3PU		665.3	20.0	0.46	604.0	17.1	0.54
7XW73J		636.0	-9.2	-0.21	547.5	-39.4	-1.24
9274LQ		565.8	-79.4	-1.81	542.2	-44.7	-1.41
967EGQ		698.5	53.3	1.22	615.5	28.6	0.91
9A4VUK		685.0	39.8	0.91	606.5	19.6	0.62
AAJEDG		648.5	3.3	0.07	582.5	-4.4	-0.14
CWMAXF		683.0	37.8	0.86	601.0	14.1	0.45
D8YUVH		674.7	29.5	0.67	612.2	25.3	0.80
DYXKAX		691.5	46.3	1.06	615.5	28.6	0.91
FRVA9B		627.4	-17.8	-0.41	567.2	-19.7	-0.62
FWRXPH		648.5	3.3	0.07	583.5	-3.4	-0.11
GU4LQC		632.5	-12.7	-0.29	571.5	-15.4	-0.49
GWFW2T		610.5	-34.7	-0.79	580.3	-6.6	-0.21
H7CPPF		693.5	48.3	1.10	613.0	26.1	0.83
H8H8MB		648.0	2.8	0.06	616.5	29.6	0.94
L6NJHC		648.5	3.3	0.07	576.5	-10.4	-0.33
N46EY6		690.1	44.9	1.02	638.3	51.5	1.63
N7GPAL		681.0	35.8	0.82	615.0	28.1	0.89
PN9K26		573.0	-72.2	-1.65	513.5	-73.4	-2.32
RA4XWK		609.5	-35.7	-0.81	577.0	-9.9	-0.31
TL9JQW		723.5	78.3	1.79	650.0	63.1	2.00
TLPYJ6		654.3	9.0	0.21	615.8	28.9	0.92
TQFAT3		647.0	1.8	0.04	577.5	-9.4	-0.30
WEU4AW		635.6	-9.6	-0.22	553.0	-33.9	-1.07
YB92FV		630.4	-14.8	-0.34	571.8	-15.1	-0.48

Summary Statistics

	Sample A11-A12	Sample J11-J12
Grand Means	645.22 percent	586.86 percent
Stnd Dev Btwn Labs	43.84 percent	31.62 percent

Statistics based on 28 of 28 reporting participants

Samples A11-A12: Polyisoprene compound, batch #1 & J11-J12: Polyisoprene compound, batch #1

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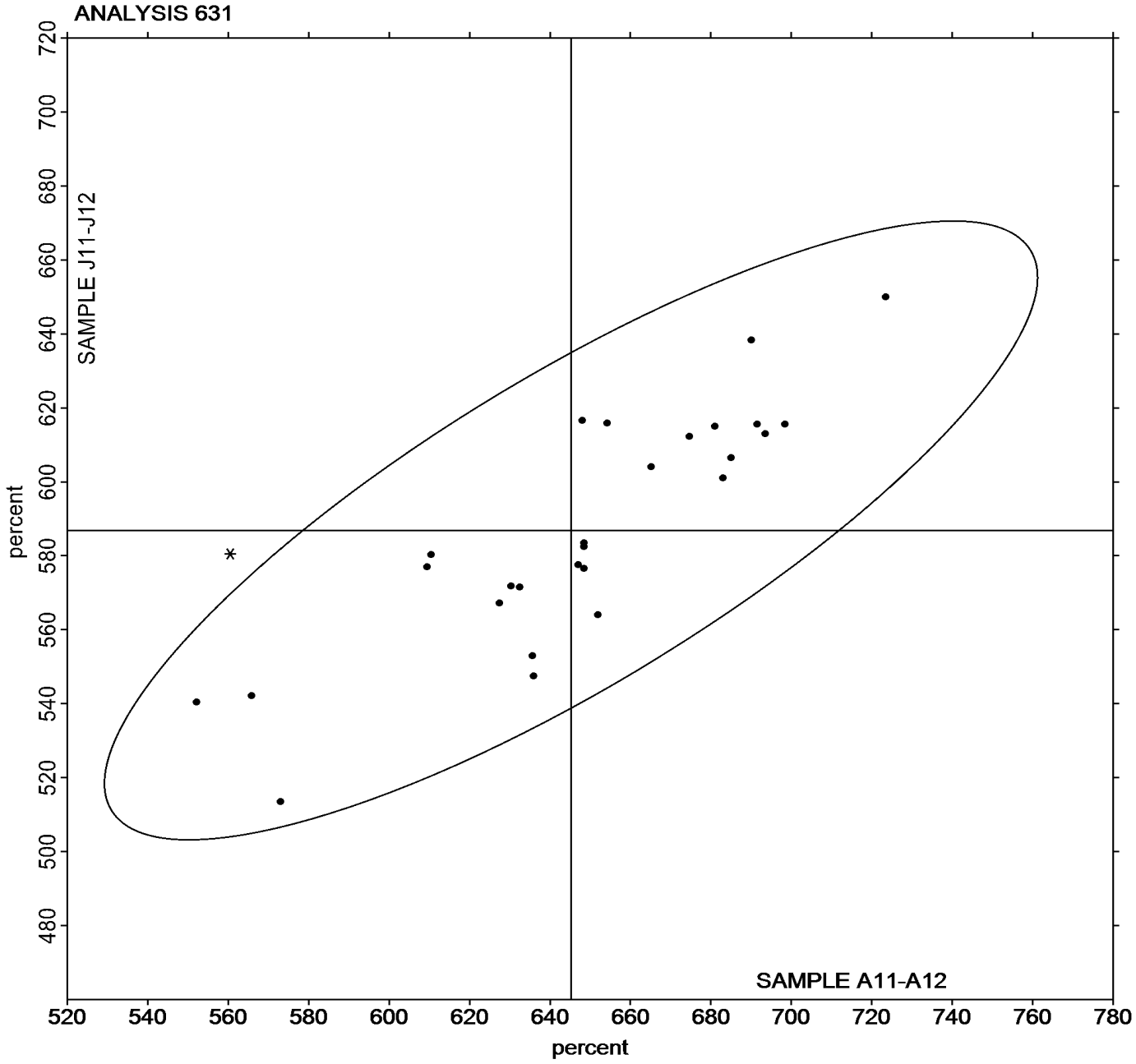
Ultimate Elongation: Precured vs. Lab-Cured Samples (percent)

Grand Mean Sample **A11-A12** = 645.22 percent

Grand Mean Sample **J11-J12** = 586.86 percent



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WebCode	Data Flag	Sample A11-A12 Lab Mean	Sample A11-A12 Diff from Grand Mean	Sample A11-A12 CPV	Sample J11-J12 Lab Mean	Sample J11-J12 Diff from Grand Mean	Sample J11-J12 CPV
2K6NKX		825.5	-36.2	-0.41	1,101.5	56.7	0.57
3M7BDT		1,072.0	210.3	2.36	1,215.0	170.1	1.72
67W73L		827.1	-34.6	-0.39	1,120.9	76.0	0.77
68N3PU		847.7	-13.9	-0.16	1,124.7	79.9	0.81
7XW73J		969.5	107.8	1.21	1,199.0	154.2	1.56
9274LQ		881.1	19.4	0.22	1,071.3	26.5	0.27
967EGQ		745.5	-116.2	-1.30	1,013.0	-31.8	-0.32
9A4VUK		802.8	-58.9	-0.66	977.4	-67.5	-0.68
AAJEDG		874.5	12.8	0.14	1,079.5	34.7	0.35
CWMAXF		808.0	-53.7	-0.60	923.5	-121.3	-1.22
D8YUVH		873.3	11.6	0.13	1,019.9	-24.9	-0.25
DYXKAX		795.5	-66.2	-0.74	1,015.5	-29.3	-0.30
FRVA9B		891.4	29.7	0.33	1,135.4	90.5	0.91
FWRXPH		781.7	-80.0	-0.90	1,058.9	14.1	0.14
GU4LQC		828.2	-33.5	-0.38	910.8	-134.0	-1.35
GWFW2T		956.0	94.3	1.06	1,019.0	-25.8	-0.26
H7CPPF	*	917.0	55.3	0.62	887.0	-157.8	-1.59
H8H8MB		878.4	16.7	0.19	947.3	-97.6	-0.98
L6NJHC		755.2	-106.5	-1.19	1,033.8	-11.0	-0.11
N46EY6		800.2	-61.4	-0.69	908.2	-136.7	-1.38
N7GPAL		838.0	-23.7	-0.27	1,010.5	-34.3	-0.35
PN9K26		1,047.0	185.3	2.08	1,227.0	182.2	1.84
RA4XWK		944.0	82.3	0.92	1,078.5	33.7	0.34
TL9JQW		664.5	-197.2	-2.21	879.0	-165.8	-1.67
TLPYJ6		783.5	-78.2	-0.88	956.2	-88.6	-0.89
TQFAT3		862.3	0.6	0.01	1,041.4	-3.4	-0.03
WEU4AW		924.1	62.4	0.70	1,160.3	115.4	1.16
YB92FV		932.6	70.9	0.80	1,140.7	95.9	0.97

Summary Statistics

	Sample A11-A12	Sample J11-J12
Grand Means	861.65 psi	1,044.82 psi
Stnd Dev Btwn Labs	89.20 psi	99.14 psi

Statistics based on 28 of 28 reporting participants

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Summary Statistics in SI Units		
Grand Means	5.9408 MPa	7.20 MPa
Stnd Dev Btwn Labs	0.6150 MPa	0.68 MPa
		Statistics based on 28 of 28 reporting participants

Samples A11-A12: Polyisoprene compound, batch #1 & J11-J12: Polyisoprene compound, batch #1

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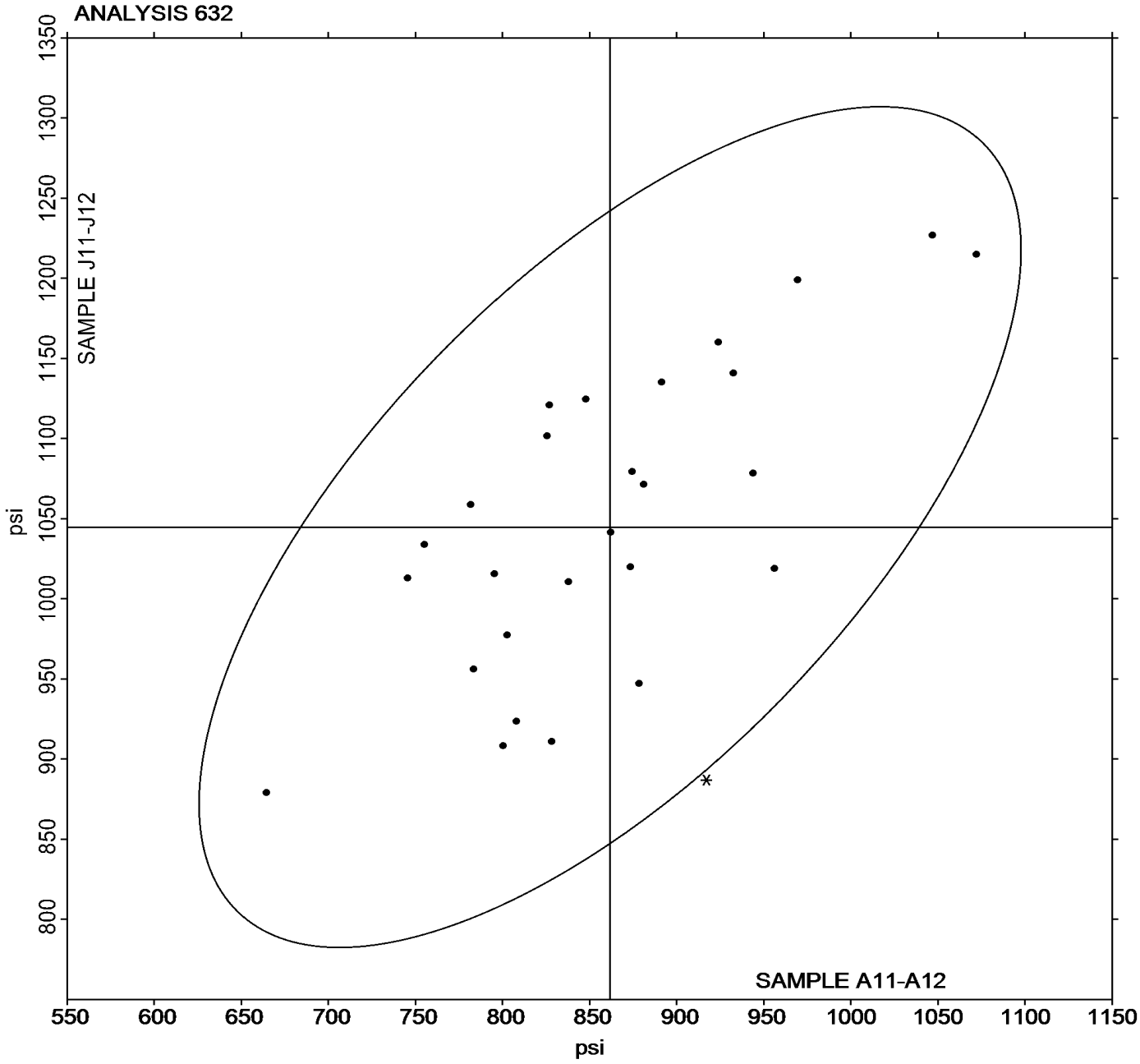
Stress at 300% Elongation: Precured vs. Lab-Cured Samples (psi)

Grand Mean Sample **A11-A12** = 861.65 psi

Grand Mean Sample **J11-J12** = 1,044.82 psi



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WebCode	Data Flag	Sample A11-A12 Lab Mean	Sample A11-A12 Diff from Grand Mean	Sample A11-A12 CPV	Sample J11-J12 Lab Mean	Sample J11-J12 Diff from Grand Mean	Sample J11-J12 CPV
2K6NKX		194.5	-3.0	-0.21	248.0	11.0	0.68
3M7BDT		212.2	14.6	1.02	249.8	12.8	0.79
67W73L		177.8	-19.7	-1.38	236.1	-0.9	-0.05
68N3PU		199.0	1.5	0.10	268.3	31.3	1.92
7XW73J		212.5	15.0	1.04	255.5	18.5	1.14
9274LQ		199.8	2.2	0.16	230.7	-6.3	-0.39
967EGQ		176.0	-21.5	-1.50	232.5	-4.5	-0.28
9A4VUK		202.0	4.4	0.31	256.4	19.4	1.19
AAJEDG		200.0	2.5	0.17	236.0	-1.0	-0.06
CWMAXF		194.0	-3.5	-0.25	223.5	-13.5	-0.83
D8YUVH		198.3	0.8	0.06	228.9	-8.1	-0.50
DYXKAX		187.0	-10.5	-0.73	224.0	-13.0	-0.80
FRVA9B		206.3	8.7	0.61	253.0	16.0	0.98
FWRXPH		181.0	-16.6	-1.16	241.8	4.7	0.29
GU4LQC		197.3	-0.3	-0.02	211.8	-25.3	-1.55
GWFW2T		211.5	14.0	0.98	238.5	1.5	0.09
H7CPPF		199.0	1.5	0.10	216.5	-20.5	-1.26
H8H8MB	*	222.9	25.4	1.77	211.5	-25.6	-1.57
L6NJHC		174.3	-23.3	-1.62	234.8	-2.3	-0.14
N46EY6		185.8	-11.7	-0.82	218.9	-18.2	-1.12
N7GPAL		199.5	2.0	0.14	236.5	-0.5	-0.03
PN9K26		201.5	4.0	0.28	243.0	6.0	0.37
RA4XWK		210.0	12.5	0.87	239.0	2.0	0.12
TL9JQW		166.5	-31.0	-2.16	210.5	-26.5	-1.63
TLPYJ6		192.8	-4.8	-0.33	227.2	-9.9	-0.61
TQFAT3		194.4	-3.2	-0.22	238.6	1.6	0.10
WEU4AW		228.5	31.0	2.16	272.8	35.8	2.20
YB92FV		206.7	9.2	0.64	252.4	15.4	0.94

Summary Statistics

	Sample A11-A12	Sample J11-J12
Grand Means	197.53 psi	237.01 psi
Stnd Dev Btwn Labs	14.33 psi	16.27 psi

Statistics based on 28 of 28 reporting participants

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

Summary Statistics in SI Units

Grand Means	1.3619 MPa	1.63 MPa
Stnd Dev Btwn Labs	0.0988 MPa	0.11 MPa

Statistics based on 28 of 28 reporting participants

Samples A11-A12: Polyisoprene compound, batch #1 & J11-J12: Polyisoprene compound, batch #1

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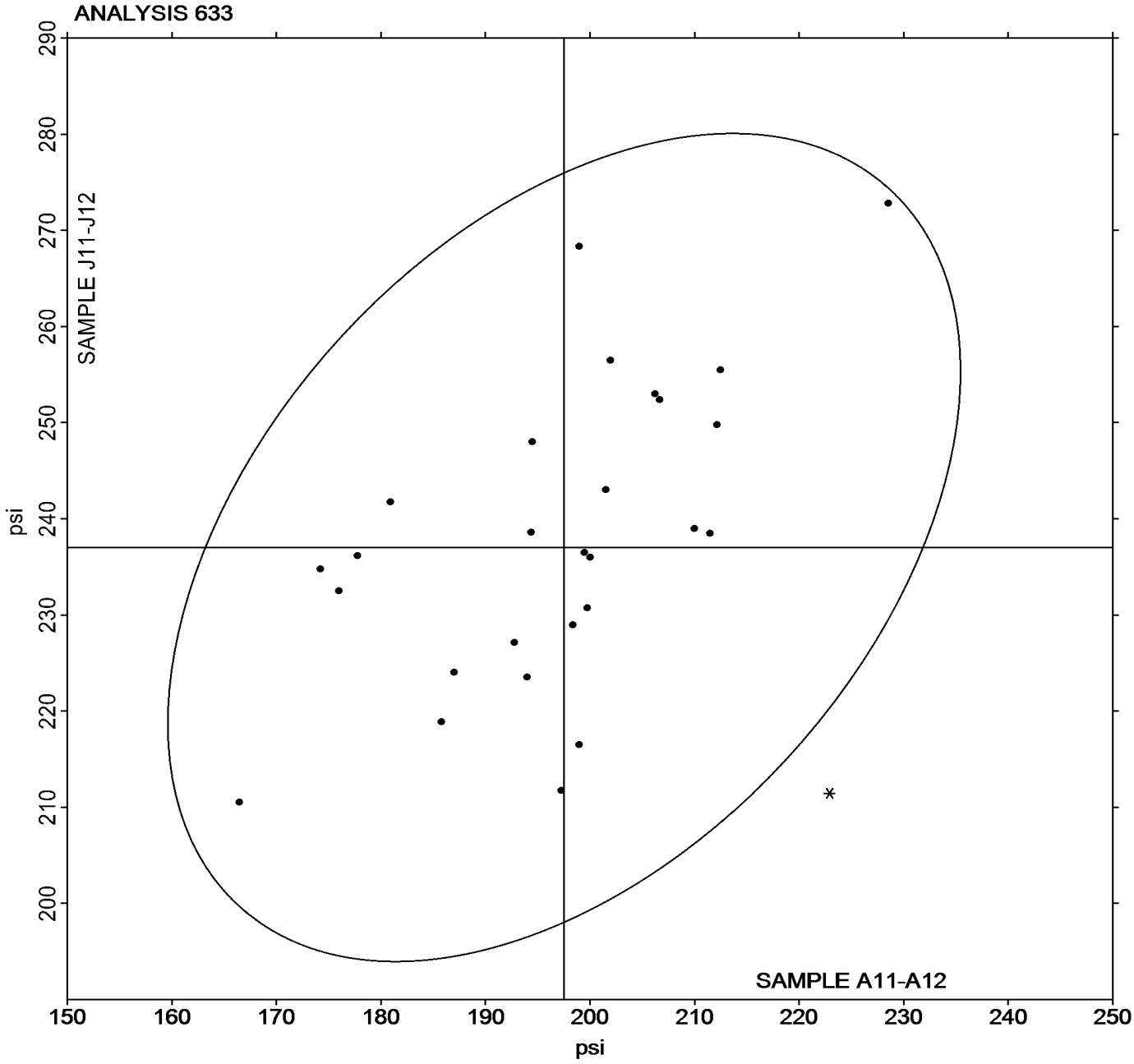
Grand Mean Sample **A11-A12** = 197.53 psi

Grand Mean Sample **J11-J12** = 237.01 psi



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WebCode	Data Flag	Sample N11 Lab Mean	Sample N11 Diff from Grand Mean	Sample N11 CPV	Sample N12 Lab Mean	Sample N12 Diff from Grand Mean	Sample N12 CPV
2CE67P		43.18	-7.09	-0.69	47.94	-2.26	-0.22
2K6NKX		49.00	-1.28	-0.12	49.33	-0.87	-0.08
3M7BDT		43.67	-6.61	-0.64	42.85	-7.35	-0.71
48AGFR		53.27	2.99	0.29	48.80	-1.40	-0.13
68N3PU		58.83	8.56	0.83	53.37	3.17	0.30
69TXT6		56.00	5.72	0.55	61.00	10.80	1.04
78J6UP		73.05	22.77	2.21	74.39	24.18	2.33
7V68PK		38.90	-11.38	-1.10	38.37	-11.83	-1.14
7XW73J		65.67	15.39	1.49	62.67	12.47	1.20
967EGQ		54.18	3.90	0.38	49.26	-0.94	-0.09
A6MM7K		36.82	-13.46	-1.31	33.17	-17.03	-1.64
BYVZNK		58.33	8.06	0.78	59.00	8.80	0.85
CCWYBG		56.07	5.79	0.56	55.27	5.07	0.49
CQVZNH		62.00	11.72	1.14	67.33	17.13	1.65
DN8NPC		45.40	-4.88	-0.47	47.20	-3.00	-0.29
FRVA9B		62.33	12.06	1.17	61.03	10.83	1.04
GWFW2T		42.67	-7.61	-0.74	41.33	-8.87	-0.85
H4NDPA		33.32	-16.95	-1.64	33.39	-16.81	-1.62
H7CPPF		35.50	-14.78	-1.43	34.13	-16.07	-1.55
K9RV28		45.67	-4.61	-0.45	46.00	-4.20	-0.40
KEU8X4		43.67	-6.61	-0.64	46.67	-3.53	-0.34
KVHHK7	*	32.46	-17.82	-1.73	40.20	-10.00	-0.96
L6NJHC		57.47	7.19	0.70	54.27	4.07	0.39
LF7439		45.00	-5.28	-0.51	39.67	-10.53	-1.01
MJWXXM	X	93.07	42.79	4.15	65.65	15.45	1.49
MVWNW2		47.00	-3.28	-0.32	46.00	-4.20	-0.40
N7GPAL		46.67	-3.61	-0.35	47.33	-2.87	-0.28
NQWW2A		43.13	-7.14	-0.69	45.28	-4.92	-0.47
PN9K26		55.19	4.92	0.48	52.64	2.44	0.23
PR8XM9		51.67	1.39	0.13	48.03	-2.17	-0.21
R6L6C6		52.33	2.06	0.20	58.33	8.13	0.78
VZU6MY		71.87	21.59	2.09	71.73	21.53	2.07
WGJFA2		48.60	-1.68	-0.16	50.43	0.23	0.02

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Summary Statistics		
Grand Means		
	50.278 % Compression	50.201 % Compression
Stnd Dev Btwn Labs		
	10.312 % Compression	10.396 % Compression
		Statistics based on 32 of 33 reporting participants

Samples N11: EPDM compound, batch #1 & N12: EPDM compound, batch #2

Comments on Assigned Data Flags for Test #635

MJWXXM (X) - Data for sample group N11 are high.

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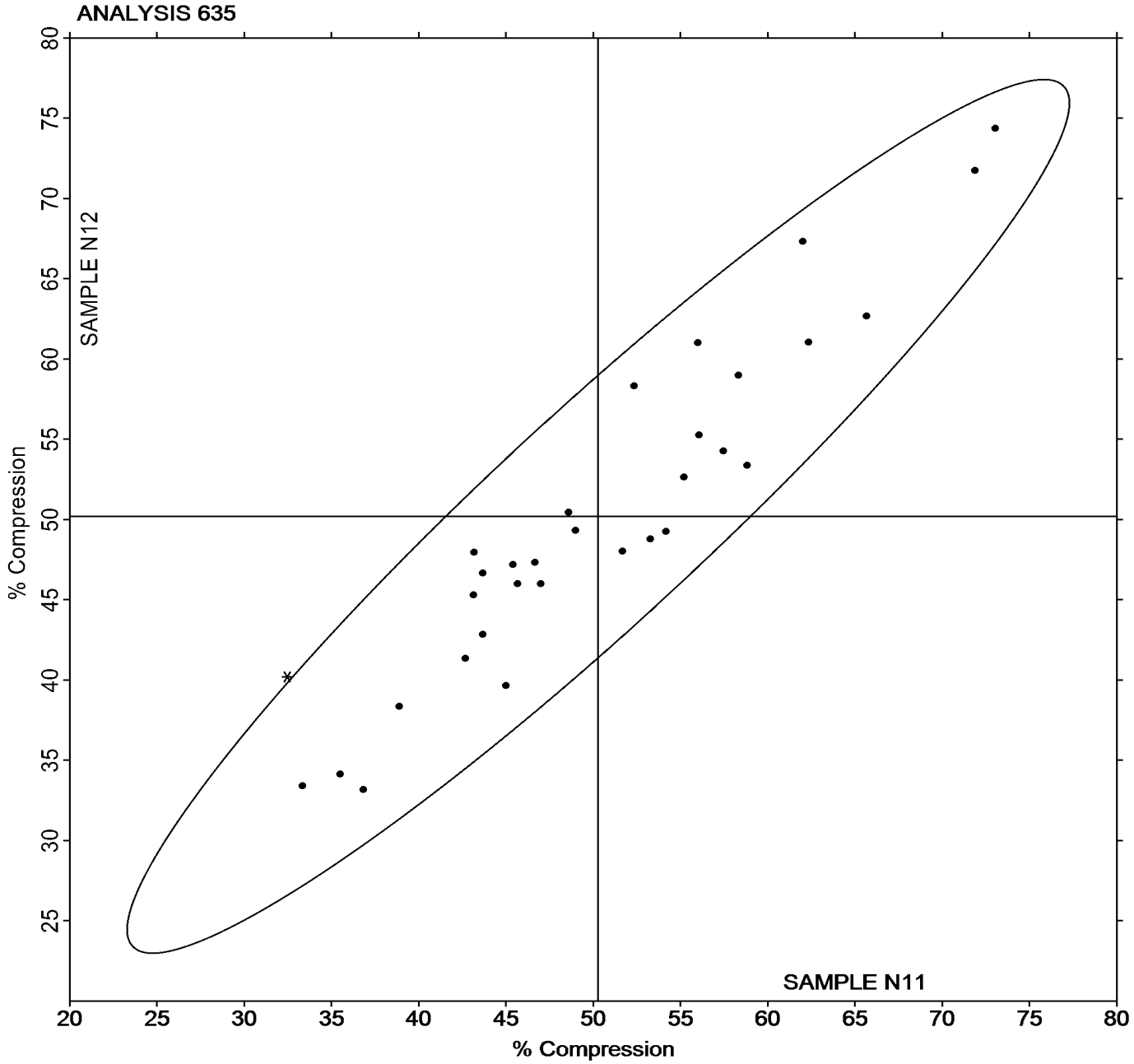
Grand Mean Sample **N11** = 50.278 % Compression

Grand Mean Sample **N12** = 50.201 % Compression



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WebCode	Data Flag	Sample S11-S12 Lab Mean	Diff from Grand Mean	CPV	Sample S13-S14 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2DYG49		46.13	0.22	0.22	54.72	-1.01	-0.70	MR
67W73L		46.08	0.17	0.17	55.65	-0.08	-0.05	MR
68N3PU		46.53	0.62	0.61	57.00	1.27	0.88	MR
78J6UP		46.19	0.27	0.27	56.84	1.11	0.77	MR
967EGQ		47.16	1.25	1.23	56.08	0.35	0.24	ML
9A4VUK		46.01	0.10	0.10	56.39	0.66	0.46	XX
AAJEDG		46.27	0.36	0.35	55.75	0.02	0.01	MR
ARD8YF		46.10	0.19	0.19	55.77	0.04	0.03	MR
CWMAXF		46.38	0.47	0.46	55.90	0.17	0.12	XX
D8YUVH		46.26	0.34	0.34	55.79	0.06	0.04	MV
DWGC3B	*	46.53	0.62	0.61	59.09	3.36	2.33	TA
DYXKAX		46.57	0.66	0.65	54.82	-0.91	-0.63	MR
FWRXPH		46.42	0.51	0.50	57.28	1.55	1.08	MR
GCJVQD		44.57	-1.34	-1.33	54.08	-1.65	-1.14	MR
GU4LQC		46.19	0.28	0.27	55.75	0.02	0.01	MV
GWFW2T		45.28	-0.63	-0.62	54.20	-1.53	-1.06	MR
H2GVRD	X	55.72	9.81	9.66	63.42	7.69	5.33	MP
H8H8MB		48.10	2.19	2.16	58.94	3.21	2.23	MZ
JWYEC7		45.40	-0.52	-0.51	55.68	-0.05	-0.03	XX
K7UTUP		45.47	-0.44	-0.44	54.60	-1.13	-0.78	MR
N46EY6	*	42.65	-3.26	-3.22	52.55	-3.18	-2.20	MV
N7GPAL		47.13	1.22	1.20	55.25	-0.48	-0.33	MR
NN2GAK		46.55	0.64	0.63	56.03	0.30	0.21	MR
PN9K26		45.16	-0.75	-0.74	54.56	-1.17	-0.81	ML
RA4XWK		45.55	-0.36	-0.36	55.63	-0.10	-0.07	MV
TL9JQW		44.67	-1.24	-1.23	53.83	-1.90	-1.31	MV
TLPYJ6		46.29	0.38	0.37	57.18	1.45	1.01	TA
TQFAT3		46.00	0.09	0.09	55.95	0.22	0.15	MR
TVDQ7W		46.71	0.80	0.79	57.33	1.60	1.11	MR
WEU4AW		44.60	-1.31	-1.29	54.09	-1.64	-1.14	MR
YB92FV		44.37	-1.54	-1.52	54.07	-1.66	-1.15	MR
ZCV3YP		45.97	0.06	0.05	56.78	1.05	0.73	MR

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Summary Statistics

Grand Means	45.912 ML 1 + 4	55.729 ML 1 + 4
Stnd Dev Btwn Labs	1.015 ML 1 + 4	1.442 ML 1 + 4

Statistics based on 31 of 32 reporting participants

Samples S11-S12: SBR & S13-S14: Butyl

Comments on Assigned Data Flags for Test #660

H2GVRD (X) - Extreme Data.

Key to Instrument Codes Reported by Participants

ML	Alpha Technologies/Monsanto model not specified	MP	Monsanto Compact Mooney Viscometer
MR	Alpha Technologies Model MV2000/MV2000E	MV	MonTech
MZ	Rebuilt Monsanto Mooney Viscometer	TA	TA Instruments (any model)
XX	Instrument make/model not specified by lab		

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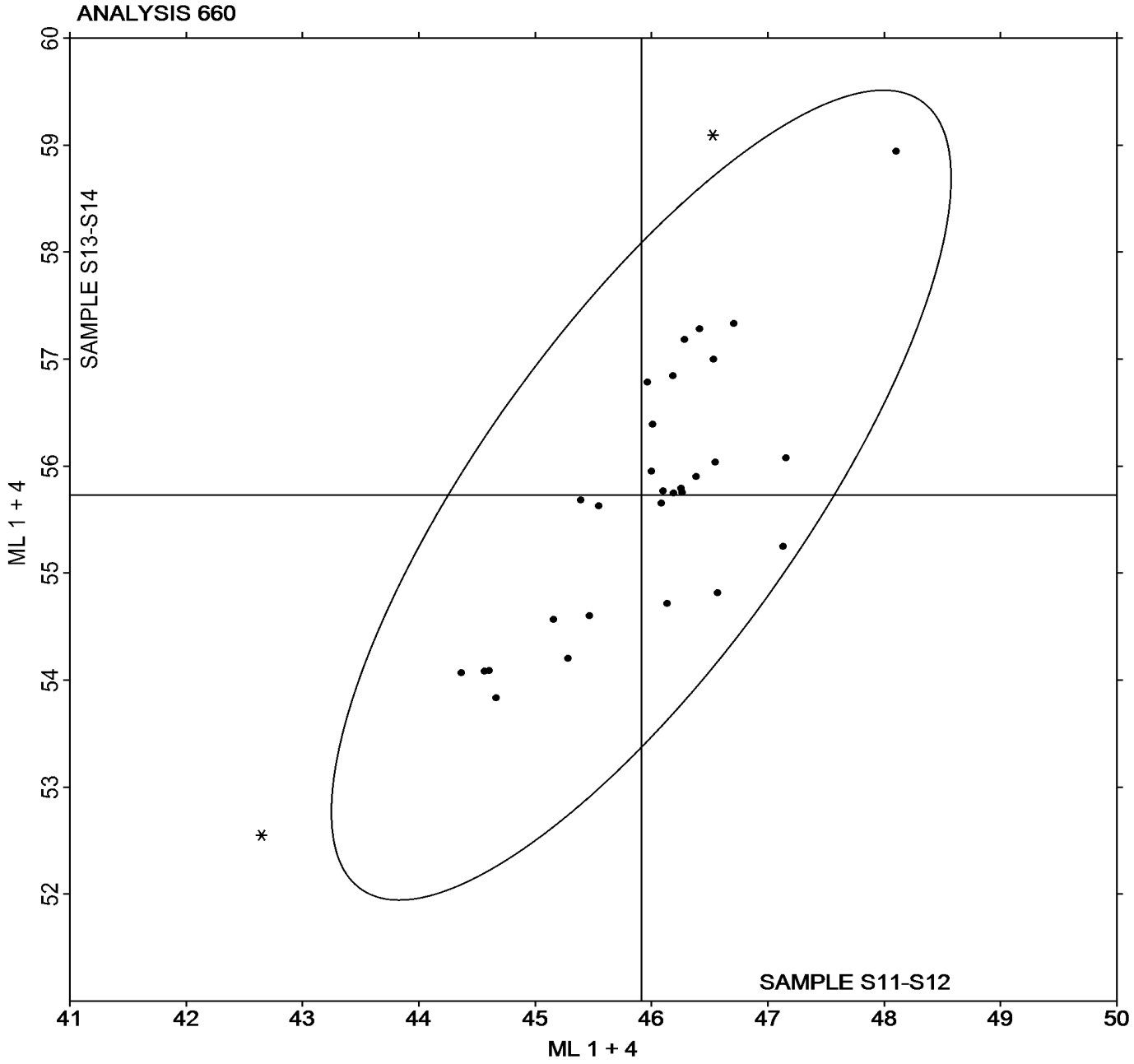
Grand Mean Sample **S11-S12** = 45.912 ML 1 + 4

Grand Mean Sample **S13-S14** = 55.729 ML 1 + 4



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

WebCode	Data Flag	Sample S11-S12 Lab Mean	Diff from Grand Mean	CPV	Sample S13-S14 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2DYG49		46.13	0.20	0.20	51.60	-1.68	-1.35	MR
67W73L		46.08	0.15	0.15	52.83	-0.45	-0.36	MR
68N3PU		46.53	0.60	0.60	54.67	1.38	1.11	MR
78J6UP		46.19	0.25	0.25	54.29	1.01	0.81	MR
967EGQ		47.16	1.23	1.22	53.62	0.34	0.27	ML
9A4VUK		46.01	0.08	0.08	53.50	0.22	0.18	XX
AAJEDG		46.27	0.34	0.33	53.58	0.30	0.24	MR
ARD8YF		46.10	0.17	0.17	53.37	0.08	0.07	MR
CWMAXF		46.38	0.45	0.45	53.33	0.05	0.04	XX
D8YUVH		46.26	0.32	0.32	53.45	0.17	0.13	MV
DWGC3B		46.53	0.60	0.59	56.10	2.81	2.25	TA
DYXKAX		46.57	0.64	0.63	52.38	-0.90	-0.72	MR
FWRXPH		46.42	0.49	0.48	54.00	0.72	0.57	MR
GU4LQC		46.19	0.26	0.26	53.73	0.45	0.36	MV
GWFW2T		45.28	-0.65	-0.64	54.28	0.99	0.80	MR
H2GVRD	X	55.72	9.79	9.71	63.12	9.83	7.88	MP
H8H8MB		48.10	2.17	2.15	56.17	2.88	2.31	MZ
JWYEC7		45.40	-0.54	-0.53	53.02	-0.26	-0.21	XX
K7UTUP		45.47	-0.46	-0.46	52.35	-0.93	-0.75	MR
N46EY6	*	42.65	-3.28	-3.26	51.10	-2.18	-1.75	MV
N7GPAL		47.13	1.20	1.19	52.41	-0.87	-0.70	MR
NN2GAK		46.55	0.62	0.61	53.30	0.02	0.01	MR
PN9K26		45.16	-0.77	-0.77	52.33	-0.95	-0.76	ML
RA4XWK		45.55	-0.38	-0.38	53.32	0.03	0.03	MV
TL9JQW		44.67	-1.26	-1.25	51.41	-1.87	-1.50	MV
TLPYJ6		46.29	0.36	0.35	54.48	1.20	0.96	TA
TQFAT3		46.00	0.07	0.07	53.42	0.13	0.11	MR
WEU4AW		44.60	-1.33	-1.32	51.54	-1.74	-1.40	MR
YB92FV		44.37	-1.56	-1.55	51.63	-1.65	-1.32	MR
ZCV3YP		45.97	0.04	0.04	54.00	0.72	0.57	MR

Summary Statistics

	Sample S11-S12	Sample S13-S14
Grand Means	45.930 ML 1 + 8	53.283 ML 1 + 8
Stnd Dev Btwn Labs	1.008 ML 1 + 8	1.248 ML 1 + 8

Statistics based on 29 of 30 reporting participants

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Samples S11-S12: SBR & S13-S14: Butyl

Comments on Assigned Data Flags for Test #661

H2GVRD (X) - Extreme Data.

Key to Instrument Codes Reported by Participants

ML	Alpha Technologies/Monsanto model not specified	MP	Monsanto Compact Mooney Viscometer
MR	Alpha Technologies Model MV2000/MV2000E	MV	Montech
MZ	Rebuilt Monsanto Mooney Viscometer	TA	TA Instruments (any model)
XX	Instrument make/model not specified by lab		

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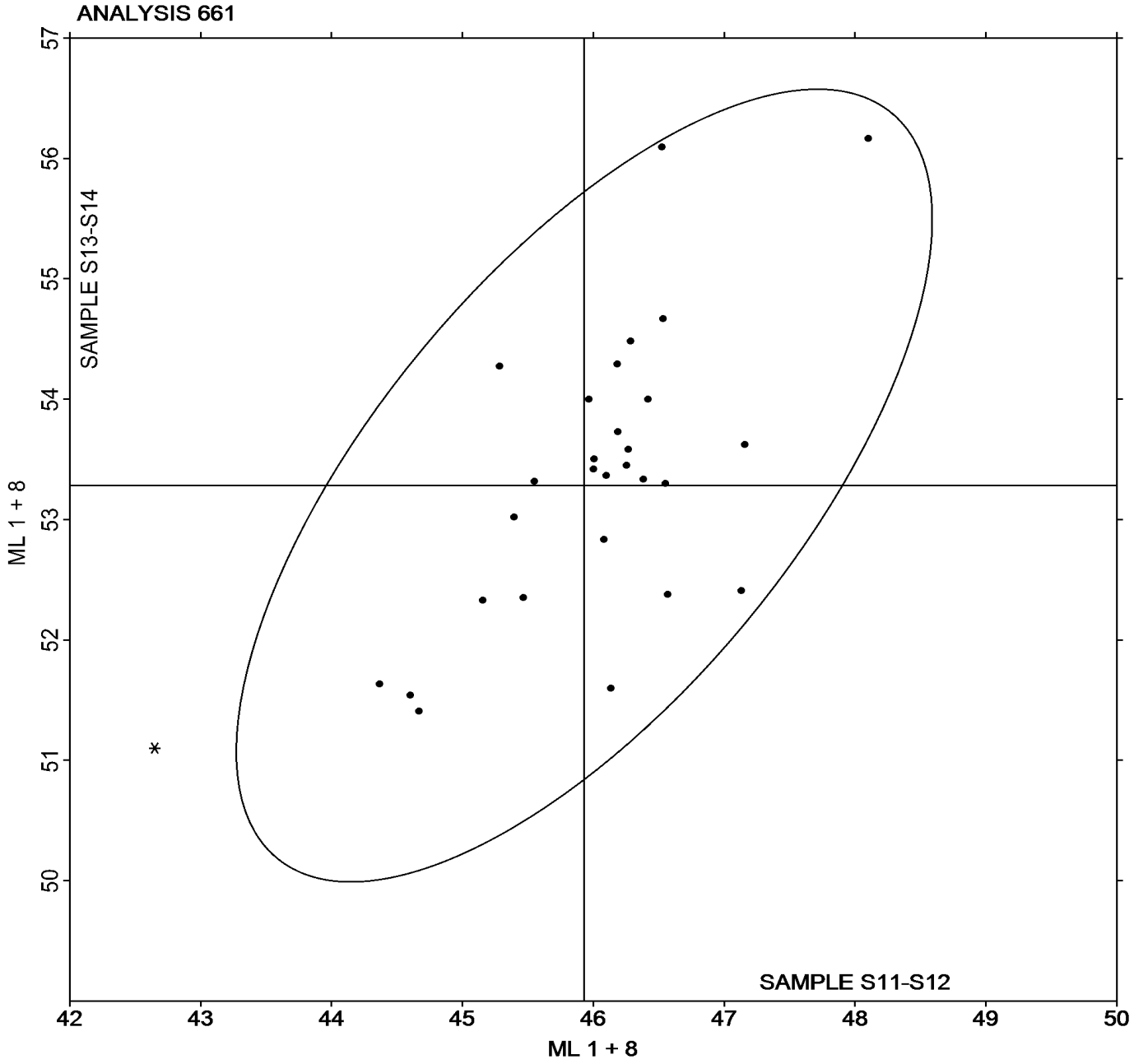
Grand Mean Sample **S11-S12** = 45.930 ML 1 + 8

Grand Mean Sample **S13-S14** = 53.283 ML 1 + 8



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Mooney Stress Relaxation: t80 (seconds)

WebCode	Data Flag	Sample S11-S12 Lab Mean	Diff from Grand Mean	CPV	Sample S13-S14 Lab Mean	Diff from Grand Mean	CPV	Instr Code
67W73L		12.67	1.79	0.67	7.520	0.352	0.45	MR
68N3PU		11.92	1.04	0.39	7.550	0.382	0.49	MR
967EGQ		13.71	2.83	1.06	7.752	0.584	0.74	ML
9A4VUK		11.50	0.62	0.23	8.500	1.332	1.69	XX
AAJEDG		12.37	1.48	0.56	7.313	0.145	0.18	MR
ARD8YF	X	29.02	18.14	6.82	10.640	3.472	4.41	MR
CWMAXF		11.07	0.18	0.07	7.300	0.132	0.17	XX
D8YUVH	X	317.83	306.95	115.36	312.000	304.832	387.54	MV
GU4LQC		11.30	0.42	0.16	7.200	0.032	0.04	MV
H8H8MB		4.77	-6.12	-2.30	6.067	-1.101	-1.40	MZ
N46EY6		4.60	-6.28	-2.36	5.667	-1.501	-1.91	MV
NN2GAK		12.27	1.38	0.52	8.467	1.299	1.65	MR
PN9K26		12.65	1.76	0.66	7.377	0.209	0.27	ML
RA4XWK		9.43	-1.45	-0.55	6.400	-0.768	-0.98	MV
TL9JQW		9.47	-1.42	-0.53	6.200	-0.968	-1.23	MV
TLPYJ6	X	311.40	300.52	112.94	308.000	300.832	382.46	TA
TQFAT3		12.15	1.27	0.48	7.385	0.217	0.28	MR
WEU4AW		12.55	1.67	0.63	6.882	-0.286	-0.36	MR
YB92FV		11.73	0.85	0.32	7.110	-0.058	-0.07	MR

Summary Statistics

	Sample S11-S12	Sample S13-S14
Grand Means	10.884 seconds	7.1680 seconds
Stnd Dev Btwn Labs	2.661 seconds	0.7866 seconds

Statistics based on 16 of 19 reporting participants

Samples S11-S12: SBR & S13-S14: Butyl

Comments on Assigned Data Flags for Test #662

ARD8YF (X) - Extreme data for Sample group S11-S12.

D8YUVH (X) - Extreme Data.

TLPYJ6 (X) - Extreme Data.

Key to Instrument Codes Reported by Participants

ML	Alpha Technologies/Monsanto model not specified	MR	Alpha Technologies Model MV2000/MV2000E
MV	MonTech	MZ	Rebuilt Monsanto Mooney Viscometer
TA	TA Instruments (any model)	XX	Instrument make/model not specified by lab

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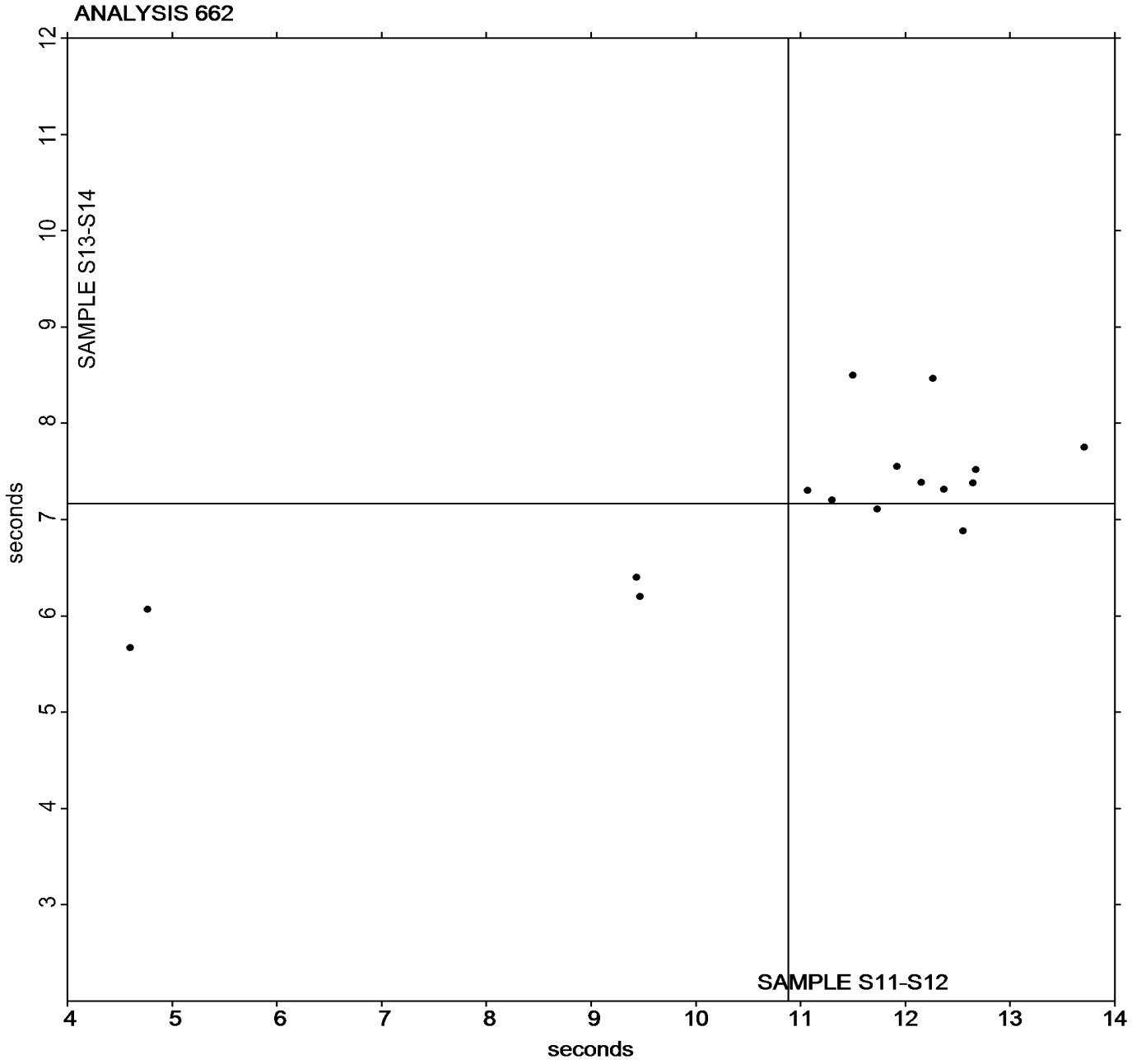
Grand Mean Sample **S11-S12** = 10.884 seconds

Grand Mean Sample **S13-S14** = 7.1680 seconds



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WebCode	Data Flag	Sample S11-S12 Lab Mean	Diff from Grand Mean	CPV	Sample S13-S14 Lab Mean	Diff from Grand Mean	CPV	Instr Code
67W73L		85.82	-0.86	-0.30	92.37	-0.24	-0.13	MR
68N3PU		86.00	-0.69	-0.23	92.26	-0.35	-0.19	MR
967EGQ		85.03	-1.66	-0.57	91.73	-0.87	-0.49	ML
9A4VUK		86.30	-0.39	-0.13	91.64	-0.96	-0.54	XX
AAJEDG		85.69	-0.99	-0.34	92.26	-0.35	-0.19	MR
ARD8YF		80.20	-6.49	-2.22	87.92	-4.68	-2.61	MR
CWMAXF		86.40	-0.28	-0.10	92.47	-0.14	-0.08	XX
D8YUVH		86.73	0.05	0.02	92.64	0.04	0.02	MV
GU4LQC		86.33	-0.35	-0.12	92.83	0.23	0.13	MV
H8H8MB	*	91.49	4.81	1.65	93.61	1.01	0.56	MZ
N46EY6		94.55	7.87	2.69	97.15	4.54	2.54	MV
NN2GAK		85.97	-0.72	-0.25	91.47	-1.14	-0.63	MR
PN9K26		85.78	-0.90	-0.31	92.66	0.05	0.03	ML
RA4XWK		87.63	0.94	0.32	93.79	1.19	0.66	MV
TL9JQW		87.62	0.94	0.32	94.26	1.66	0.93	MV
TLPYJ6	X	13.20	-73.48	-25.17	7.38	-85.23	-47.54	TA
TQFAT3		85.82	-0.86	-0.30	92.21	-0.40	-0.22	MR
WEU4AW	X	73.62	-13.06	-4.47	91.22	-1.38	-0.77	MR
YB92FV		86.25	-0.43	-0.15	93.00	0.39	0.22	MR

Summary Statistics

	Sample S11-S12	Sample S13-S14
Grand Means	86.682 percent	92.604 percent
Stnd Dev Btwn Labs	2.920 percent	1.793 percent

Statistics based on 17 of 19 reporting participants

Samples S11-S12: SBR & S13-S14: Butyl

Comments on Assigned Data Flags for Test #663

TLPYJ6 (X) - Extreme Data.

WEU4AW (X) - Data for sample group S11-S12 are low.

Key to Instrument Codes Reported by Participants

ML	Alpha Technologies/Monsanto model not specified	MR	Alpha Technologies Model MV2000/MV2000E
MV	Montech	MZ	Rebuilt Monsanto Mooney Viscometer
TA	TA Instruments (any model)	XX	Instrument make/model not specified by lab

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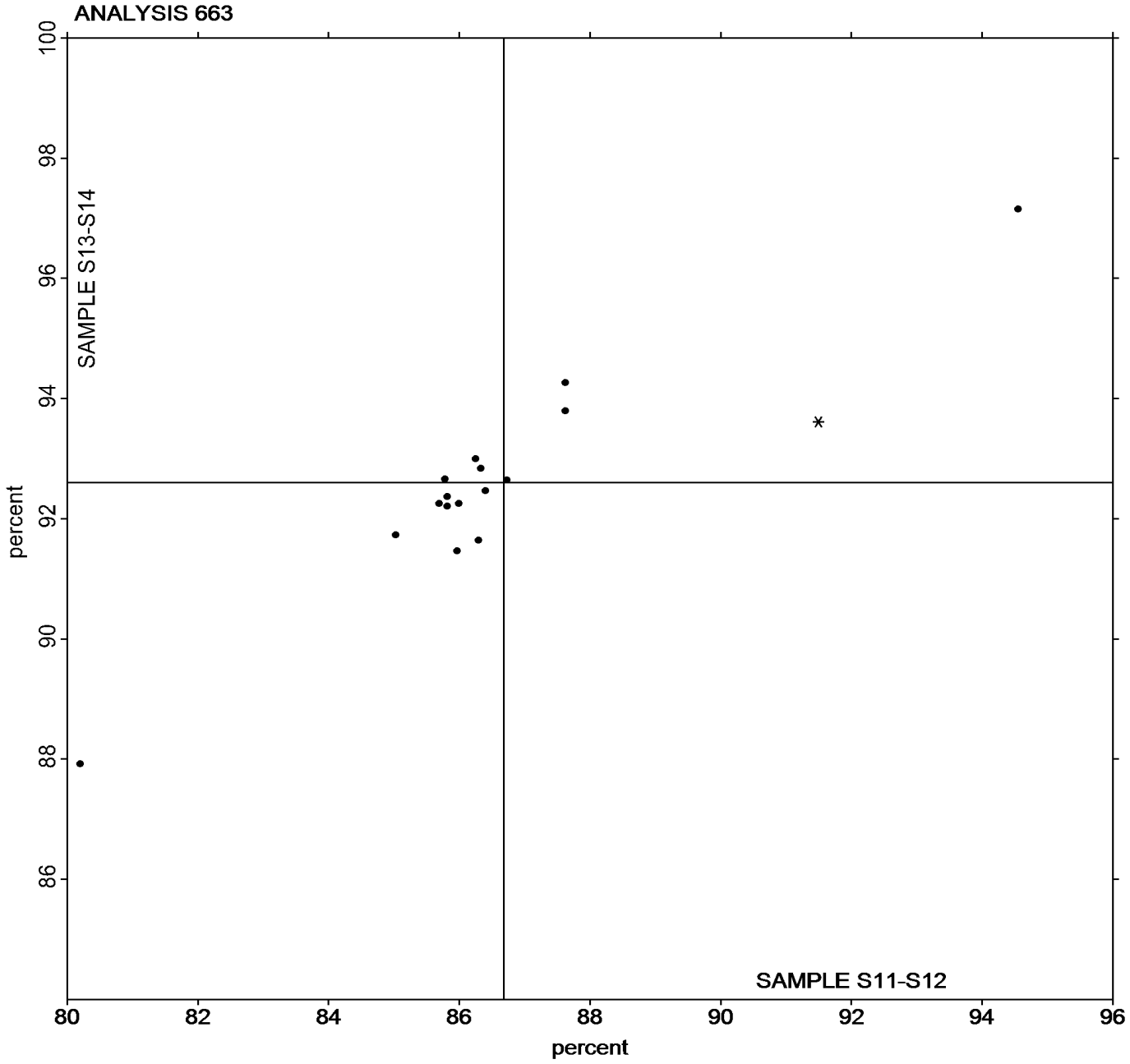
Grand Mean Sample **S11-S12** = 86.682 percent

Grand Mean Sample **S13-S14** = 92.604 percent



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WebCode	Data Flag	Sample S11-S12 Lab Mean	Diff from Grand Mean	CPV	Sample S13-S14 Lab Mean	Diff from Grand Mean	CPV	Instr Code
67W73L		706.2	49.1	0.56	461.5	9.4	0.17	MR
68N3PU		702.3	45.2	0.52	480.4	28.3	0.50	MR
967EGQ		807.9	150.9	1.72	553.4	101.3	1.80	ML
9A4VUK		678.8	21.7	0.25	533.9	81.8	1.46	XX
AAJEDG		715.7	58.6	0.67	467.3	15.2	0.27	MR
CWMAXF		677.7	20.7	0.24	459.4	7.3	0.13	XX
D8YUVH		657.1	0.0	0.00	450.5	-1.7	-0.03	MV
GU4LQC		667.6	10.5	0.12	441.4	-10.7	-0.19	MV
H8H8MB	*	404.5	-252.5	-2.89	407.5	-44.6	-0.79	MZ
JWYEC7		520.5	-136.6	-1.56	463.0	10.9	0.19	XX
N46EY6	X	212.8	-444.2	-5.08	186.0	-266.1	-4.73	MV
NN2GAK		712.7	55.6	0.64	529.2	77.0	1.37	MR
PN9K26		691.2	34.2	0.39	434.6	-17.6	-0.31	ML
RA4XWK		598.0	-59.1	-0.68	362.1	-90.0	-1.60	MV
TL9JQW		587.4	-69.7	-0.80	323.9	-128.2	-2.28	MV
TLPYJ6		644.5	-12.5	-0.14	458.0	5.8	0.10	TA
TQFAT3		704.1	47.1	0.54	473.3	21.1	0.38	MR
WEU4AW		689.4	32.3	0.37	419.8	-32.3	-0.57	MR
YB92FV		661.3	4.3	0.05	419.0	-33.1	-0.59	XX

Summary Statistics

	Sample S11-S12	Sample S13-S14
Grand Means	657.04 M-s	452.12 M-s
Stnd Dev Btwn Labs	87.50 M-s	56.23 M-s

Statistics based on 18 of 19 reporting participants

Samples S11-S12: SBR & S13-S14: Butyl

Comments on Assigned Data Flags for Test #664

N46EY6 (X) - Extreme data.

Key to Instrument Codes Reported by Participants

ML	Alpha Technologies/Monsanto model not specified	MR	Alpha Technologies Model MV2000/MV2000E
MV	MonTech	MZ	Rebuilt Mooney Viscometer
TA	TA Instruments (any model)	XX	Instrument make/model not specified by lab

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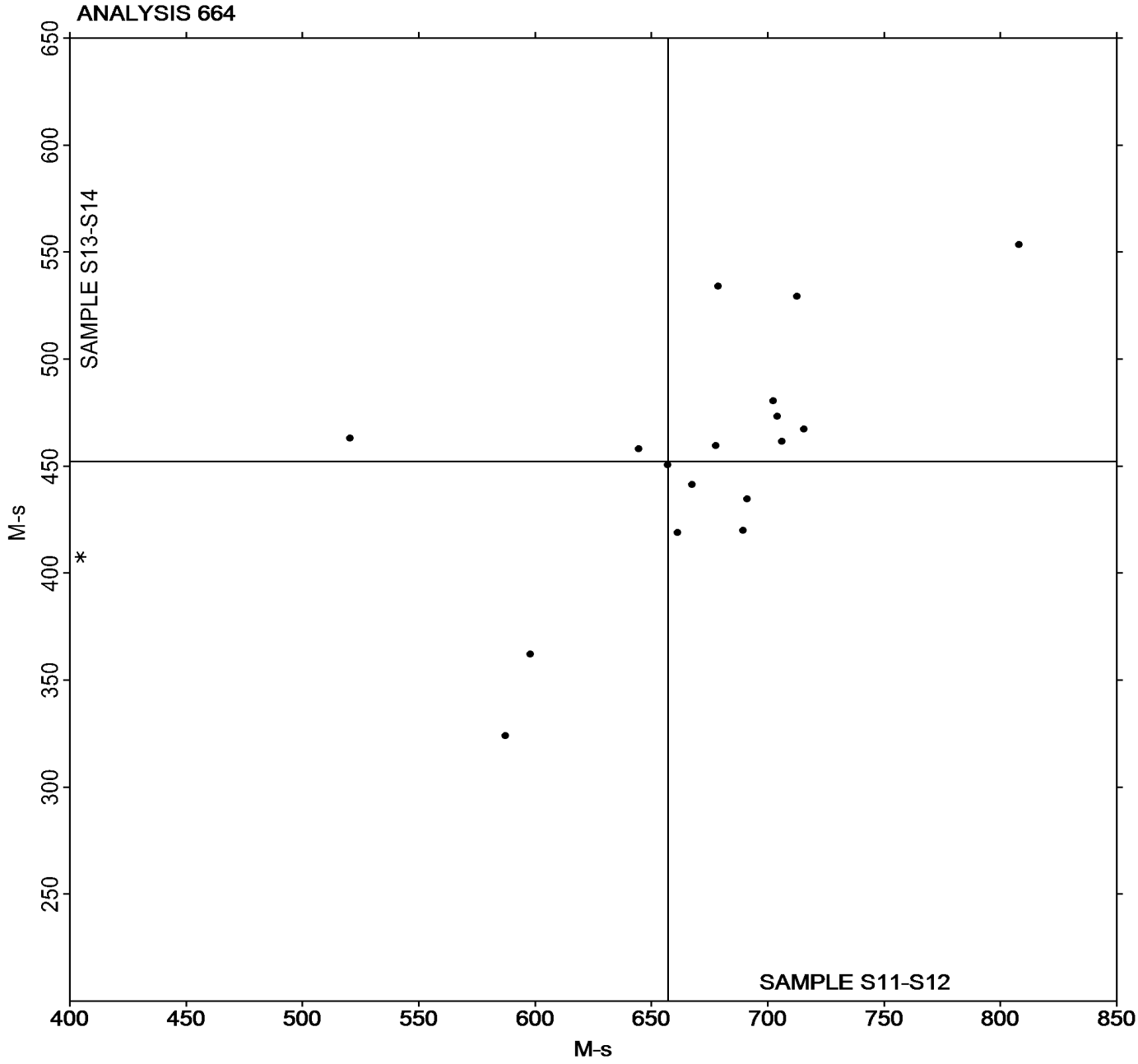
Grand Mean Sample **S11-S12** = 657.04 M-s

Grand Mean Sample **S13-S14** = 452.12 M-s



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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WebCode	Data Flag	Sample W11-W12 Lab Mean	Diff from Grand Mean	CPV	Sample W13-W14 Lab Mean	Diff from Grand Mean	CPV
3M7BDT		1.948	-0.045	-0.32	3.378	-0.155	-0.61
K7UTUP		2.202	0.209	1.49	3.912	0.378	1.48
N46EY6		1.918	-0.075	-0.53	3.380	-0.153	-0.60
RA4XWK		1.903	-0.090	-0.64	3.463	-0.070	-0.27

Summary Statistics

Grand Means	1.9929 minutes	3.5333 minutes
Stnd Dev Btwn Labs	0.1404 minutes	0.2553 minutes

Statistics based on 4 of 4 reporting participants

Samples W11-W12: EPDM compound, batch #1 & W13-W14: EPDM compound, batch #2

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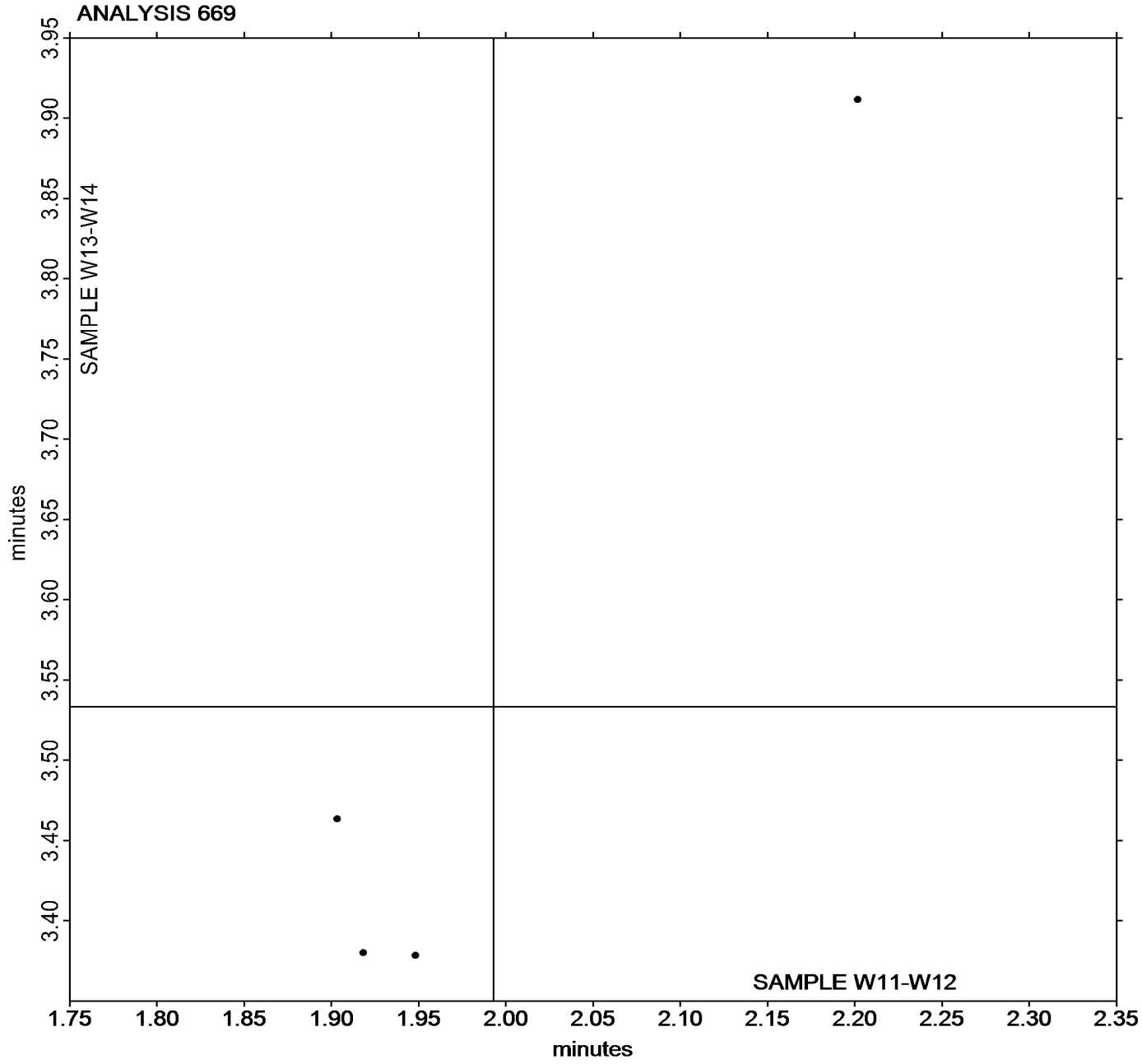
Grand Mean Sample **W11-W12** = 1.9929 minutes

Grand Mean Sample **W13-W14** = 3.5333 minutes



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WebCode	Data Flag	Sample W11-W12 Lab Mean	Sample W11-W12 Diff from Grand Mean	Sample W11-W12 CPV	Sample W13-W14 Lab Mean	Sample W13-W14 Diff from Grand Mean	Sample W13-W14 CPV
3M7BDT		1.460	-0.020	-0.16	2.207	-0.140	-0.60
K7UTUP		1.652	0.172	1.41	2.683	0.336	1.44
N46EY6		1.443	-0.037	-0.30	2.327	-0.020	-0.09
RA4XWK		1.365	-0.115	-0.94	2.172	-0.175	-0.75

Summary Statistics

	Sample W11-W12	Sample W13-W14
Grand Means	1.4800 minutes	2.3471 minutes
Stnd Dev Btwn Labs	0.1217 minutes	0.2338 minutes

Statistics based on 4 of 4 reporting participants

Samples W11-W12: EPDM compound, batch #1 & W13-W14: EPDM compound, batch #2

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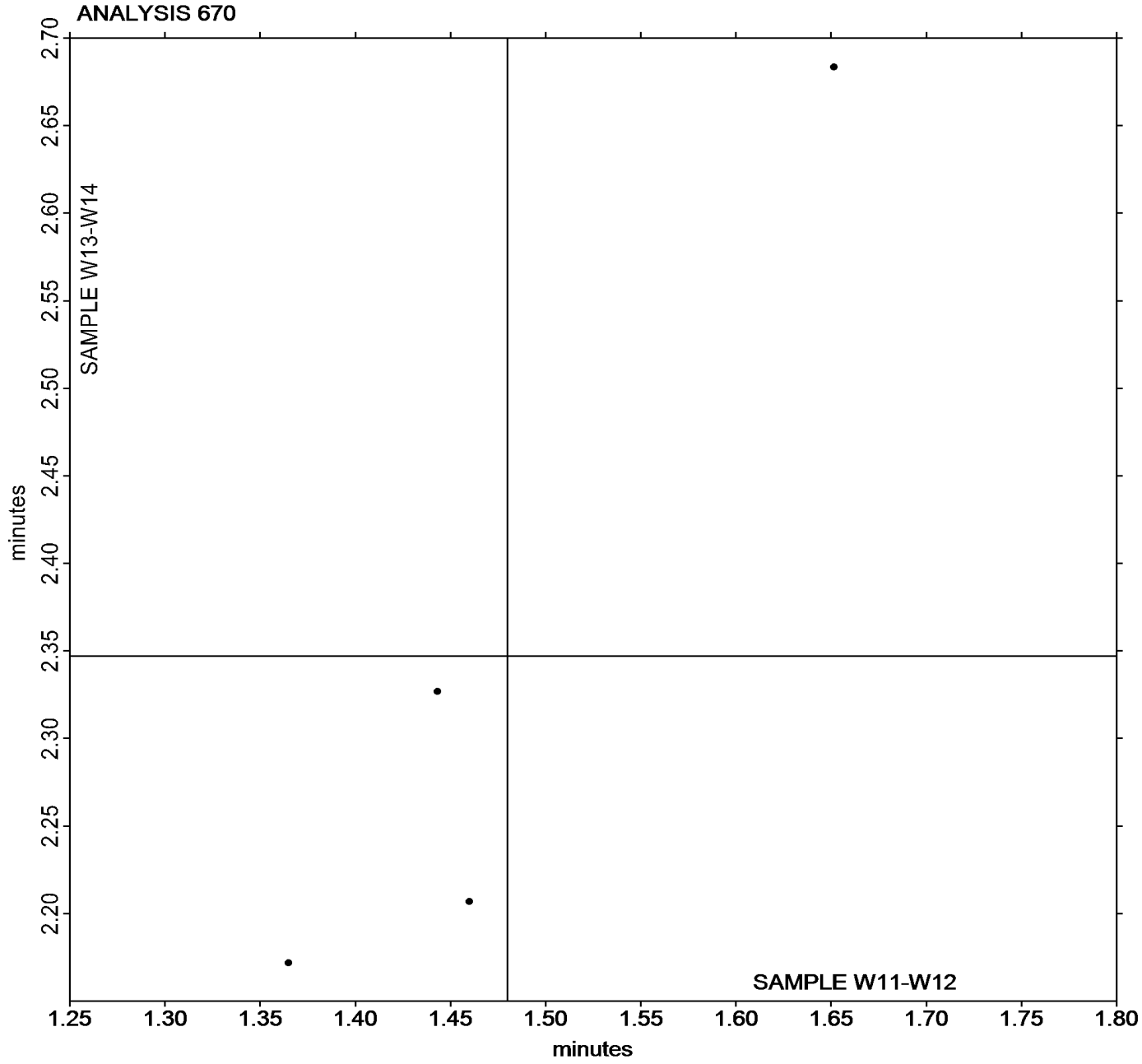
Grand Mean Sample **W11-W12** = 1.4800 minutes

Grand Mean Sample **W13-W14** = 2.3471 minutes



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WebCode	Data Flag	Sample W11-W12 Lab Mean	Sample W11-W12 Diff from Grand Mean	Sample W11-W12 CPV	Sample W13-W14 Lab Mean	Sample W13-W14 Diff from Grand Mean	Sample W13-W14 CPV
3M7BDT		3.752	-0.023	-0.09	6.870	0.238	0.69
K7UTUP		4.123	0.349	1.44	6.973	0.341	0.99
N46EY6		3.607	-0.168	-0.69	6.257	-0.375	-1.09
RA4XWK		3.615	-0.159	-0.66	6.428	-0.204	-0.59

Summary Statistics

	Sample W11-W12	Sample W13-W14
Grand Means	3.7742 minutes	6.6321 minutes
Stnd Dev Btwn Labs	0.2421 minutes	0.3442 minutes

Statistics based on 4 of 4 reporting participants

Samples W11-W12: EPDM compound, batch #1 & W13-W14: EPDM compound, batch #2

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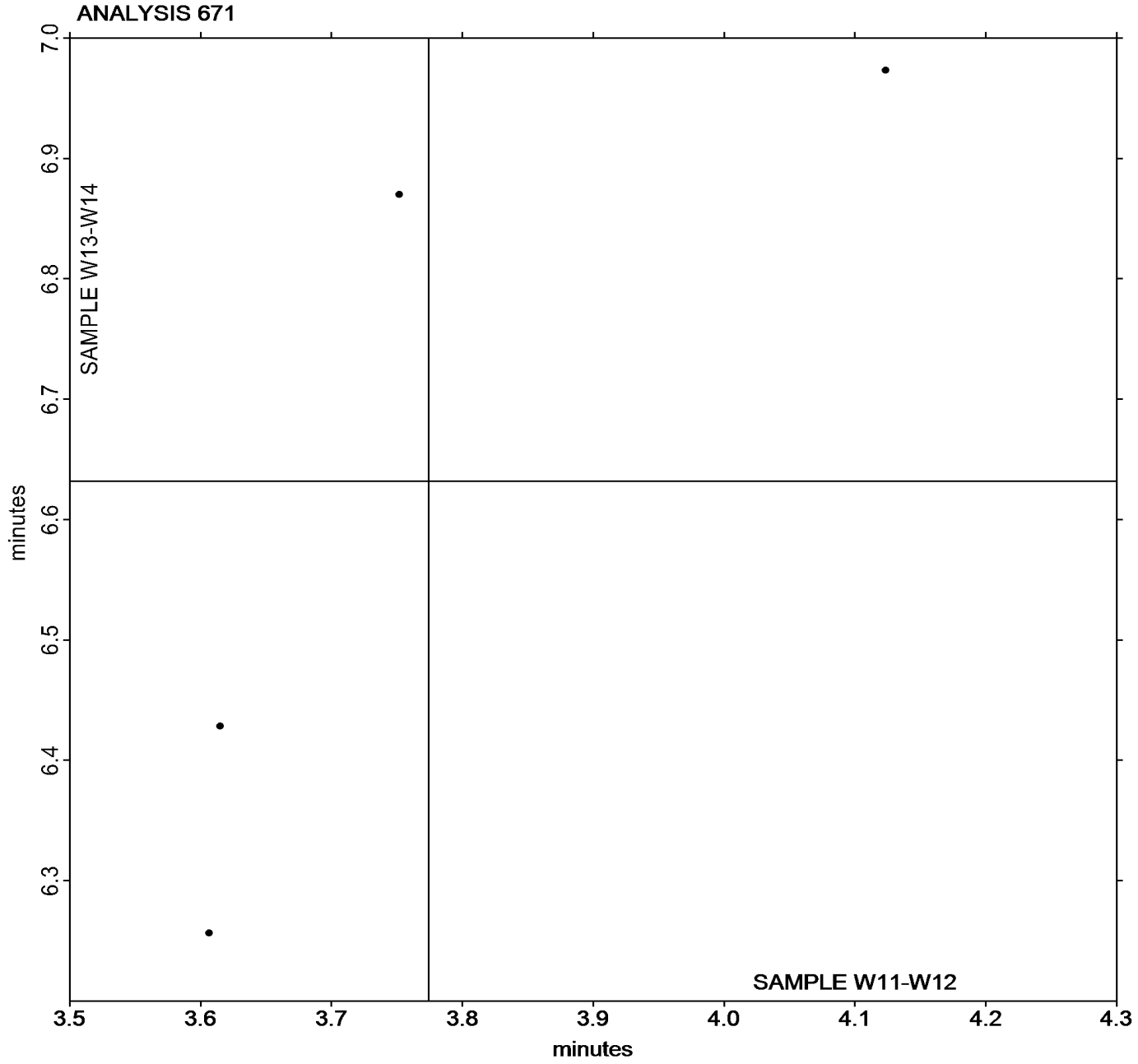
Grand Mean Sample **W11-W12** = 3.7742 minutes

Grand Mean Sample **W13-W14** = 6.6321 minutes



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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WebCode	Data Flag	Sample W11-W12 Lab Mean	Sample W11-W12 Diff from Grand Mean	Sample W11-W12 CPV	Sample W13-W14 Lab Mean	Sample W13-W14 Diff from Grand Mean	Sample W13-W14 CPV
3M7BDT		11.38	-1.63	-1.03	12.12	0.57	1.06
K7UTUP		15.03	2.02	1.28	11.88	0.33	0.61
N46EY6		12.22	-0.79	-0.50	10.98	-0.57	-1.06
RA4XWK		13.40	0.39	0.25	11.23	-0.33	-0.61

Summary Statistics

	Sample W11-W12	Sample W13-W14
Grand Means	13.009 minutes	11.551 minutes
Stnd Dev Btwn Labs	1.583 minutes	0.538 minutes

Statistics based on 4 of 4 reporting participants

Samples W11-W12: EPDM compound, batch #1 & W13-W14: EPDM compound, batch #2

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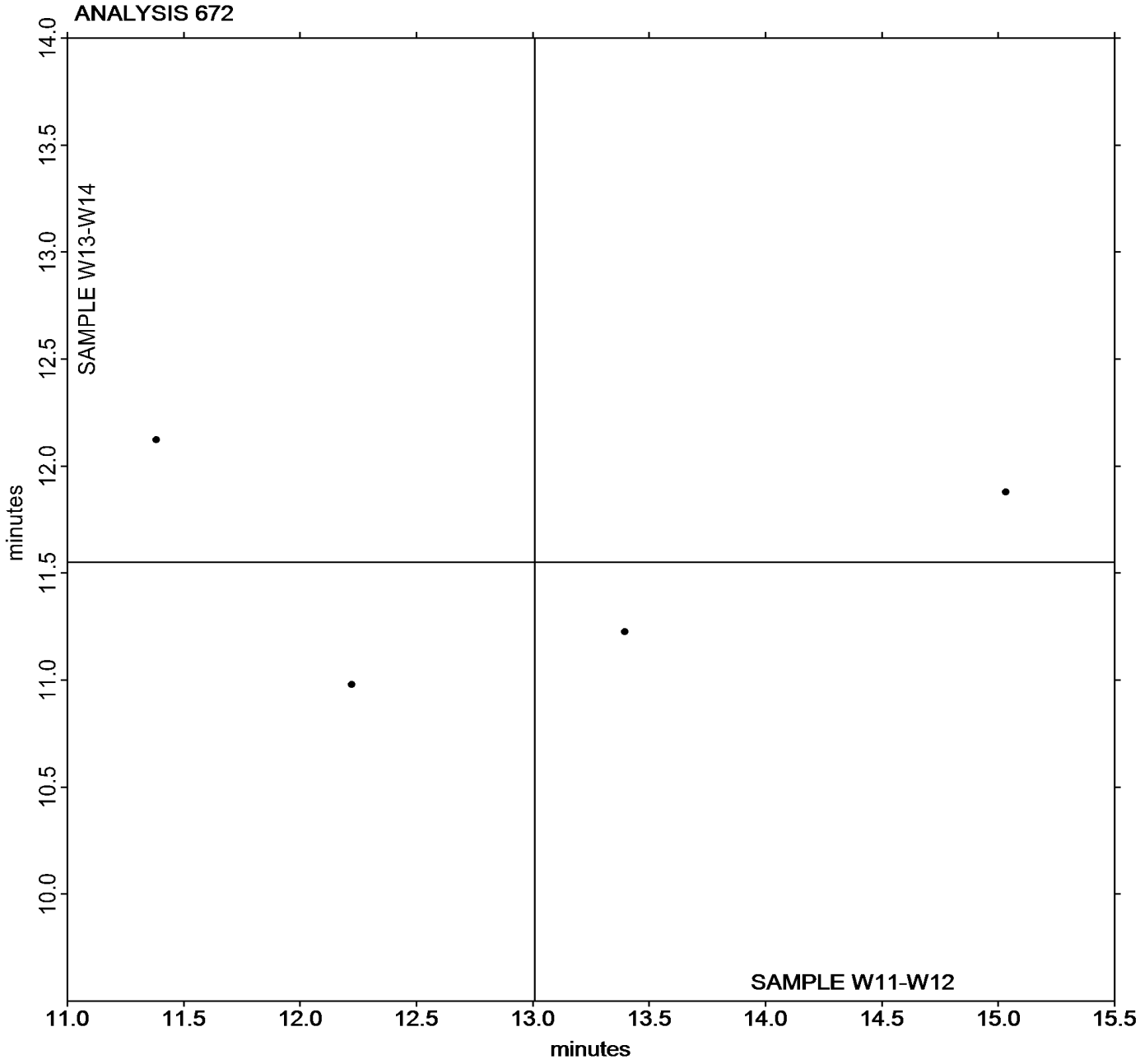
Grand Mean Sample **W11-W12** = 13.009 minutes

Grand Mean Sample **W13-W14** = 11.551 minutes



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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WebCode	Data Flag	Sample W11-W12 Lab Mean	Sample W11-W12 Diff from Grand Mean	Sample W11-W12 CPV	Sample W13-W14 Lab Mean	Sample W13-W14 Diff from Grand Mean	Sample W13-W14 CPV
3M7BDT		10.165	2.721	1.34	10.525	3.506	1.49
K7UTUP		7.267	-0.178	-0.09	6.075	-0.944	-0.40
N46EY6		5.263	-2.181	-1.08	5.480	-1.539	-0.65
RA4XWK		7.082	-0.363	-0.18	5.997	-1.023	-0.43

Summary Statistics

	Sample W11-W12	Sample W13-W14
Grand Means	7.4442 lbf.in	7.0192 lbf.in
Stnd Dev Btwn Labs	2.0266 lbf.in	2.3521 lbf.in

Statistics based on 4 of 4 reporting participants

Summary Statistics in SI Units

	Sample W11-W12	Sample W13-W14
Grand Means	8.4108 dN.m	7.9306 dN.m
Stnd Dev Btwn Labs	2.2898 dN.m	2.6575 dN.m

Statistics based on 4 of 4 reporting participants

Samples W11-W12: EPDM compound, batch #1 & W13-W14: EPDM compound, batch #2

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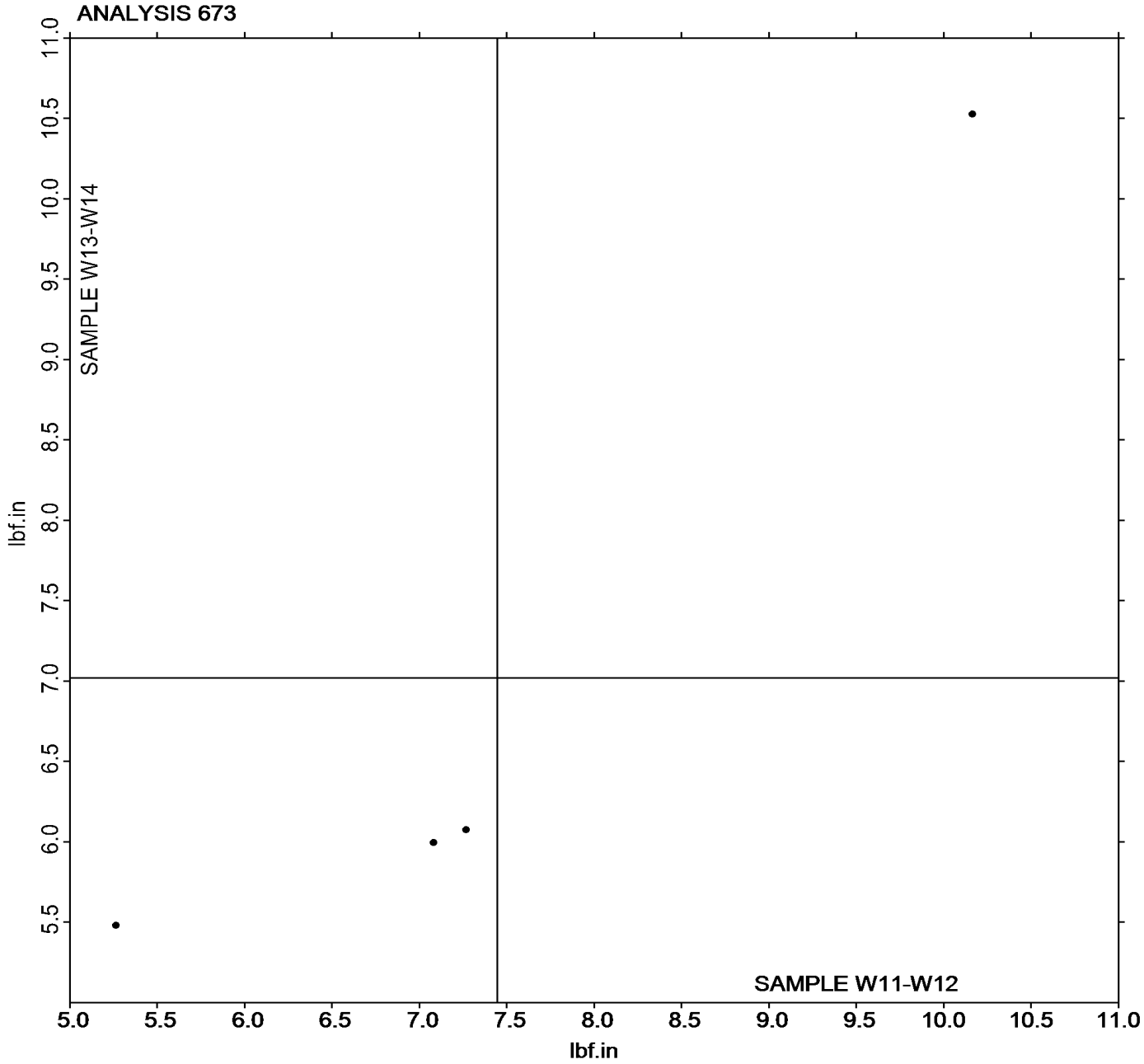
Grand Mean Sample **W11-W12** = 7.4442 lbf.in

Grand Mean Sample **W13-W14** = 7.0192 lbf.in



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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WebCode	Data Flag	Sample W11-W12 Lab Mean	Sample W11-W12 Diff from Grand Mean	Sample W11-W12 CPV	Sample W13-W14 Lab Mean	Sample W13-W14 Diff from Grand Mean	Sample W13-W14 CPV
3M7BDT		43.36	0.02	0.01	40.48	3.24	1.12
K7UTUP		41.82	-1.52	-0.70	34.80	-2.44	-0.84
N46EY6		41.77	-1.57	-0.72	34.80	-2.44	-0.84
RA4XWK		46.41	3.07	1.41	38.87	1.63	0.56

Summary Statistics

	Sample W11-W12	Sample W13-W14
Grand Means	43.337 lbf.in	37.237 lbf.in
Stnd Dev Btwn Labs	2.177 lbf.in	2.891 lbf.in

Statistics based on 4 of 4 reporting participants

Summary Statistics in SI Units

	Sample W11-W12	Sample W13-W14
Grand Means	48.964 dN.m	42.072 dN.m
Stnd Dev Btwn Labs	2.460 dN.m	3.266 dN.m

Statistics based on 4 of 4 reporting participants

Samples W11-W12: EPDM compound, batch #1 & W13-W14: EPDM compound, batch #2

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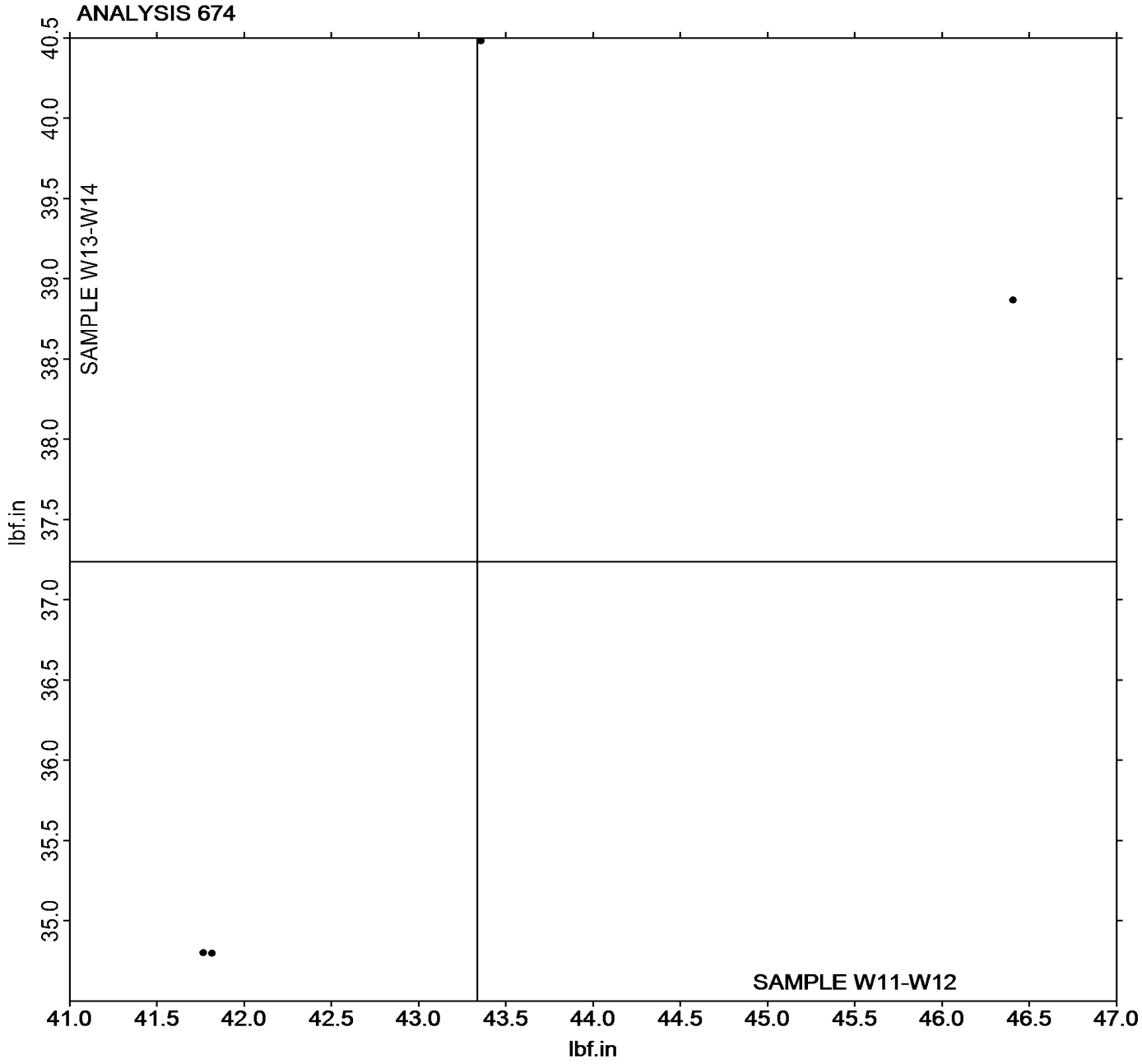
Grand Mean Sample **W11-W12** = 43.337 lbf.in

Grand Mean Sample **W13-W14** = 37.237 lbf.in



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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WebCode	Data Flag	Sample W15-W16 Lab Mean	Diff from Grand Mean	CPV	Sample W17-W18 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2K6NKX		2.564	-0.055	-0.69	2.556	-0.093	-1.15	MC
67W73L		2.567	-0.053	-0.65	2.687	0.038	0.47	MC
68N3PU		2.545	-0.074	-0.92	2.587	-0.062	-0.76	MD
78J6UP		2.757	0.137	1.71	2.775	0.126	1.56	MC
7XW73J		2.520	-0.099	-1.24	2.625	-0.024	-0.29	MC
967EGQ		2.680	0.061	0.76	2.627	-0.022	-0.27	MM
9A4VUK		2.707	0.087	1.09	2.732	0.083	1.02	ME
AAJEDG		2.607	-0.013	-0.16	2.553	-0.095	-1.17	MC
ARD8YF		2.535	-0.084	-1.05	2.692	0.043	0.53	MC
CWMAXF		2.613	-0.006	-0.07	2.608	-0.040	-0.50	XX
D8YUVH		2.718	0.099	1.23	2.770	0.121	1.50	MR
DXA9PJ		2.580	-0.039	-0.49	2.698	0.050	0.61	MD
DYXKAX		2.617	-0.003	-0.03	2.635	-0.014	-0.17	MC
FRVA9B		2.450	-0.169	-2.11	2.607	-0.042	-0.52	MC
GU4LQC		2.642	0.022	0.28	2.540	-0.109	-1.34	MC
GWFW2T		2.560	-0.059	-0.74	2.607	-0.042	-0.52	XX
H8H8MB		2.618	-0.001	-0.01	2.653	0.005	0.06	MX
HBUHXR		2.537	-0.083	-1.03	2.547	-0.102	-1.26	MM
K7UTUP		2.680	0.061	0.76	2.558	-0.090	-1.11	MC
L6NJHC		2.650	0.031	0.38	2.770	0.121	1.50	MC
PJDTU8		2.555	-0.064	-0.80	2.535	-0.114	-1.40	MC
PN9K26		2.615	-0.004	-0.05	2.557	-0.092	-1.13	ME
RA4XWK		2.750	0.131	1.63	2.702	0.053	0.65	XX
TL9JQW		2.795	0.176	2.19	2.838	0.190	2.34	MM
TQFAT3		2.630	0.011	0.13	2.653	0.005	0.06	MC
TVDQ7W		2.622	0.002	0.03	2.692	0.043	0.53	MP
WEU4AW		2.567	-0.053	-0.65	2.660	0.011	0.14	MC
XH7EKD		2.567	-0.053	-0.65	2.627	-0.022	-0.27	ME
YHT4MY		2.712	0.092	1.15	2.722	0.073	0.90	XX

Summary Statistics

	Sample W15-W16	Sample W17-W18
Grand Means	2.6192 minutes	2.6486 minutes
Stnd Dev Btwn Labs	0.0803 minutes	0.0812 minutes

Statistics based on 29 of 29 reporting participants

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Samples W15-W16: EPDM compound, batch #1 & W17-W18: EPDM compound, batch #2

Key to Instrument Codes Reported by Participants

MC	Alpha Technologies [Monsanto] MDR 2000 or 2000E	MD	Alpha Tech. Rubber Process Analyzer (RPA 2000)
ME	Alpha Tech. MDR Premiere	MM	MonTech MDR 3000
MP	Alpha Technologies [Monsanto] MDR 2000P	MR	MonTech D-RPA 3000
MX	Rebuilt MonTech Alpha	XX	Instrument model not specified by lab

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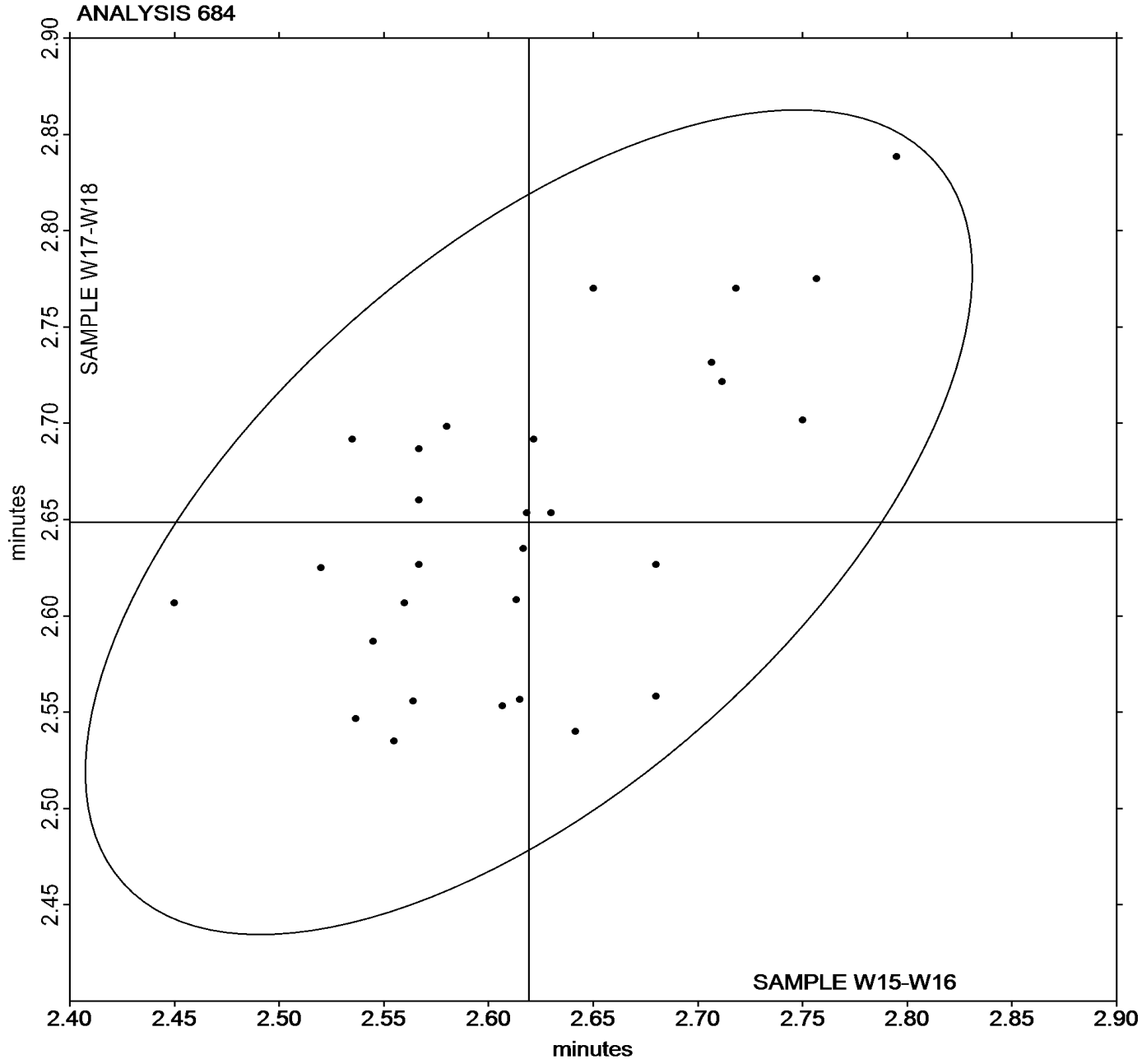
Grand Mean Sample **W15-W16** = 2.6192 minutes

Grand Mean Sample **W17-W18** = 2.6486 minutes



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WebCode	Data Flag	Sample W15-W16 Lab Mean	Diff from Grand Mean	CPV	Sample W17-W18 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2K6NKX		2.303	0.020	0.14	2.494	-0.028	-0.23	MC
67W73L		2.343	0.060	0.45	2.677	0.154	1.29	MC
68N3PU		2.280	-0.003	-0.02	2.552	0.029	0.24	MD
78J6UP		2.467	0.183	1.36	2.687	0.164	1.37	MC
7XW73J		2.232	-0.052	-0.38	2.568	0.046	0.38	MC
967EGQ		2.358	0.075	0.56	2.567	0.044	0.37	MM
9A4VUK		2.398	0.115	0.85	2.618	0.096	0.80	ME
AAJEDG		2.428	0.145	1.08	2.532	0.009	0.08	MC
ARD8YF		2.533	0.250	1.86	2.758	0.236	1.97	MC
CWMAXF		2.368	0.085	0.63	2.563	0.041	0.34	XX
D8YUVH		2.047	-0.237	-1.76	2.252	-0.271	-2.26	MR
DXA9PJ		2.357	0.073	0.54	2.680	0.158	1.32	MD
DYXKAX		2.413	0.130	0.96	2.643	0.121	1.01	MC
FRVA9B		1.993	-0.290	-2.15	2.329	-0.193	-1.62	MC
GU4LQC		2.340	0.057	0.42	2.493	-0.029	-0.24	MC
GWFW2T		2.177	-0.107	-0.79	2.417	-0.106	-0.88	XX
H8H8MB		2.127	-0.157	-1.16	2.430	-0.092	-0.77	MX
HBUHXR		2.442	0.158	1.17	2.540	0.018	0.15	MM
K7UTUP		2.347	0.063	0.47	2.507	-0.016	-0.13	MC
L6NJHC		2.298	0.015	0.11	2.583	0.061	0.51	MC
PJDTU8		2.250	-0.033	-0.25	2.495	-0.027	-0.23	MC
PN9K26		2.197	-0.087	-0.64	2.402	-0.121	-1.01	ME
RA4XWK	X	2.888	0.605	4.49	2.965	0.443	3.70	XX
TL9JQW		2.312	0.028	0.21	2.533	0.011	0.09	MM
TQFAT3		2.175	-0.108	-0.80	2.448	-0.074	-0.62	MC
TVDQ7W		2.105	-0.178	-1.32	2.420	-0.102	-0.86	MP
WEU4AW		2.355	0.072	0.53	2.608	0.086	0.72	MC
XH7EKD		2.325	0.042	0.31	2.582	0.059	0.50	ME
Y88ZFY		2.050	-0.233	-1.73	2.312	-0.211	-1.76	MC
YB92FV		2.122	-0.162	-1.20	2.372	-0.151	-1.26	MC
YHT4MY		2.358	0.075	0.56	2.610	0.088	0.73	XX

Summary Statistics

	Sample W15-W16	Sample W17-W18
Grand Means	2.2833 minutes	2.5224 minutes
Stnd Dev Btwn Labs	0.1348 minutes	0.1197 minutes

Statistics based on 30 of 31 reporting participants

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Samples W15-W16: EPDM compound, batch #1 & W17-W18: EPDM compound, batch #2

Comments on Assigned Data Flags for Test #685

RA4XWK (X) - Data for all samples are high. Possible Systematic Error.

Key to Instrument Codes Reported by Participants

MC	Alpha Technologies [Monsanto] MDR 2000 or 2000E	MD	Alpha Tech. Rubber Process Analyzer (RPA 2000)
ME	Alpha Tech. MDR Premiere	MM	MonTech MDR 3000
MP	Alpha Technologies [Monsanto] MDR 2000P	MR	MonTech D-RPA 3000
MX	Rebuilt MonTech Alpha	XX	Instrument model not specified by lab

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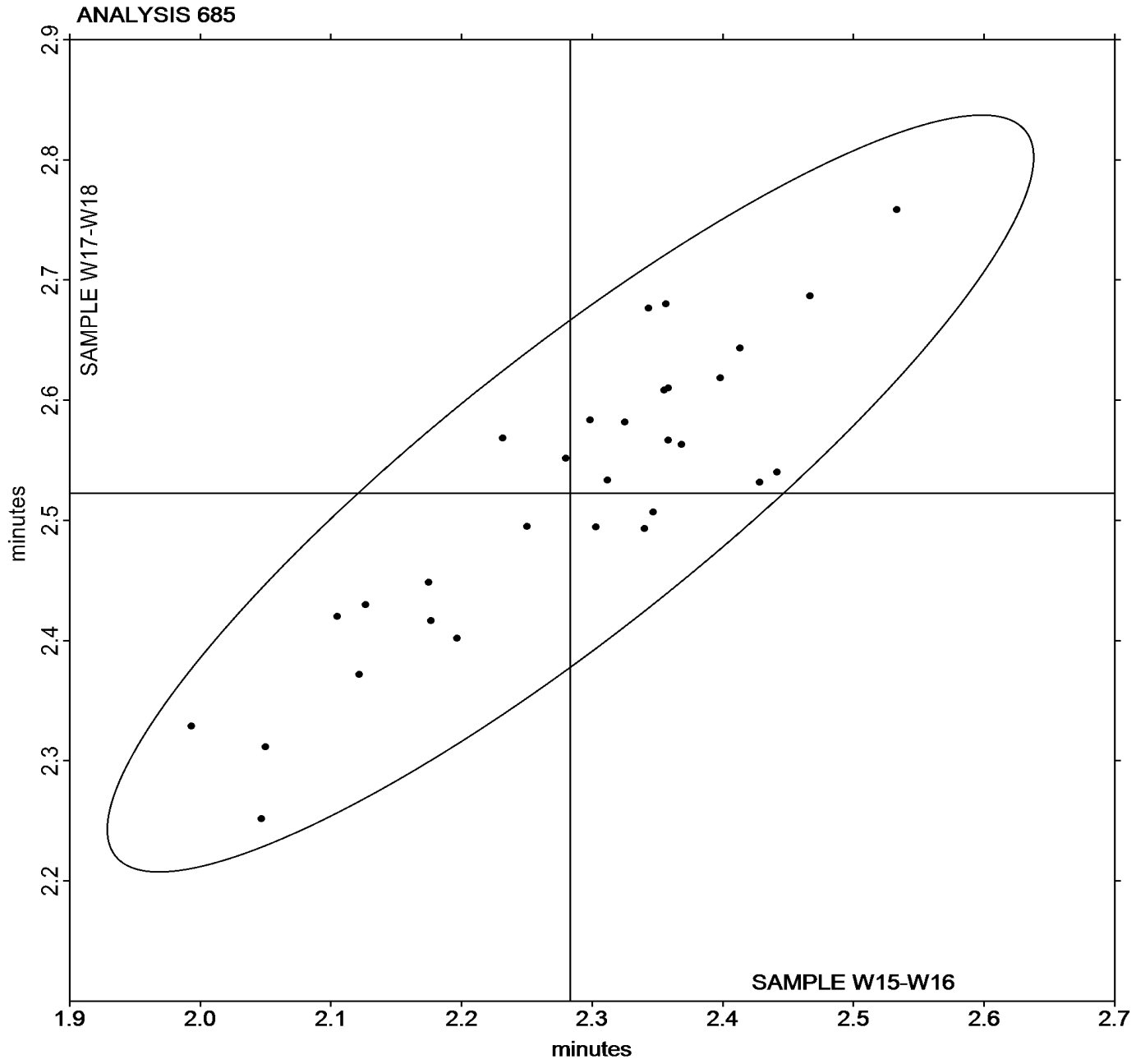
Grand Mean Sample **W15-W16** = 2.2833 minutes

Grand Mean Sample **W17-W18** = 2.5224 minutes



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WebCode	Data Flag	Sample W15-W16 Lab Mean	Sample W15-W16 Diff from Grand Mean	Sample W15-W16 CPV	Sample W17-W18 Lab Mean	Sample W17-W18 Diff from Grand Mean	Sample W17-W18 CPV	Instr Code
2K6NKX		5.997	0.018	0.10	5.783	-0.111	-0.67	MC
67W73L		5.962	-0.017	-0.09	6.045	0.151	0.91	MC
68N3PU		5.918	-0.061	-0.32	5.880	-0.014	-0.09	MD
78J6UP		6.195	0.216	1.13	6.108	0.214	1.30	MC
7XW73J		6.038	0.059	0.31	6.052	0.158	0.95	MC
967EGQ		6.170	0.191	1.00	6.045	0.151	0.91	MM
9A4VUK		6.005	0.026	0.14	6.138	0.244	1.48	ME
AAJEDG		5.895	-0.084	-0.44	5.638	-0.256	-1.55	MC
ARD8YF	*	5.493	-0.486	-2.55	5.772	-0.122	-0.74	MC
CWMAXF		6.037	0.058	0.30	5.828	-0.066	-0.40	XX
D8YUVH		5.818	-0.161	-0.84	5.845	-0.049	-0.30	MR
DXA9PJ		5.855	-0.124	-0.65	5.965	0.071	0.43	MD
DYXKAX		6.050	0.071	0.37	5.917	0.023	0.14	MC
FRVA9B		5.718	-0.261	-1.37	5.827	-0.067	-0.41	MC
GU4LQC		6.068	0.089	0.47	5.788	-0.106	-0.64	MC
GWFW2T		6.128	0.149	0.78	5.650	-0.244	-1.48	XX
H8H8MB		6.053	0.074	0.39	5.997	0.103	0.62	MX
HBUHXR		5.738	-0.241	-1.26	5.693	-0.201	-1.21	MM
K7UTUP		6.252	0.273	1.43	5.860	-0.034	-0.21	MC
L6NJHC		6.003	0.024	0.13	6.093	0.199	1.21	MC
PJDTU8		6.000	0.021	0.11	5.790	-0.104	-0.63	MC
PN9K26		5.960	-0.019	-0.10	5.643	-0.251	-1.52	ME
RA4XWK		6.080	0.101	0.53	5.902	0.008	0.05	XX
TL9JQW		6.315	0.336	1.76	6.292	0.398	2.40	MM
TQFAT3		6.018	0.039	0.21	5.948	0.054	0.33	MC
TVDQ7W		5.913	-0.066	-0.35	5.835	-0.059	-0.36	MC
WEU4AW		5.673	-0.306	-1.61	5.765	-0.129	-0.78	MC
XH7EKD		5.987	0.008	0.04	5.833	-0.061	-0.37	ME
Y88ZFY		5.633	-0.346	-1.82	5.678	-0.216	-1.31	MC
YB92FV		6.050	0.071	0.37	5.962	0.068	0.41	MC
YHT4MY		6.325	0.346	1.82	6.143	0.249	1.51	XX

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Summary Statistics

Grand Means	5.9791 minutes	5.8941 minutes
Stnd Dev Btwn Labs	0.1905 minutes	0.1653 minutes

Statistics based on 31 of 31 reporting participants

Samples W15-W16: EPDM compound, batch #1 & W17-W18: EPDM compound, batch #2

Key to Instrument Codes Reported by Participants

MC	Alpha Technologies [Monsanto] MDR 2000 or 2000E	MD	Alpha Tech. Rubber Process Analyzer (RPA 2000)
ME	Alpha Tech. MDR Premiere	MM	MonTech MDR 3000
MR	MonTech D-RPA 3000	MX	Rebuilt MonTech Alpha
XX	Instrument model not specified by lab		

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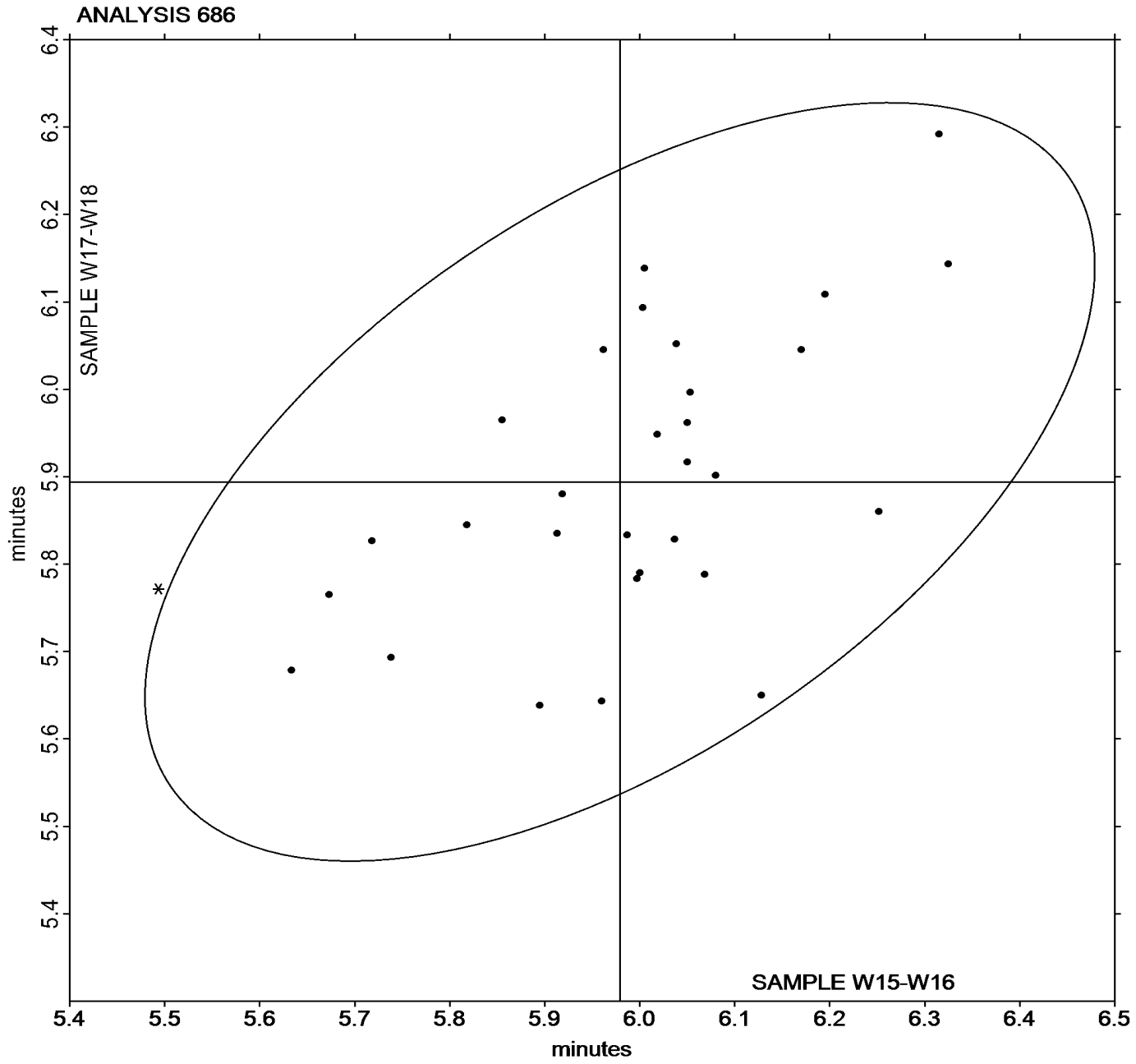
Grand Mean Sample **W15-W16** = 5.9791 minutes

Grand Mean Sample **W17-W18** = 5.8941 minutes



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WebCode	Data Flag	Sample W15-W16 Lab Mean	Diff from Grand Mean	CPV	Sample W17-W18 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2K6NKX		9.664	-0.044	-0.13	9.309	-0.239	-0.71	MC
67W73L		9.875	0.167	0.48	9.940	0.393	1.16	MC
68N3PU		9.538	-0.170	-0.49	9.463	-0.084	-0.25	MD
78J6UP		10.062	0.353	1.02	9.840	0.293	0.87	MC
7XW73J		9.507	-0.202	-0.58	9.505	-0.042	-0.13	MC
967EGQ		10.413	0.705	2.03	9.913	0.366	1.08	MM
9A4VUK		9.835	0.127	0.37	9.893	0.346	1.02	ME
AAJEDG		9.425	-0.283	-0.82	9.073	-0.474	-1.40	MC
ARD8YF		9.132	-0.577	-1.66	9.525	-0.022	-0.07	MC
CWMAXF		9.842	0.133	0.38	9.568	0.021	0.06	XX
D8YUVH		10.130	0.422	1.22	10.027	0.479	1.42	MR
DXA9PJ		9.603	-0.105	-0.30	9.552	0.004	0.01	MD
DYXKAX		9.588	-0.120	-0.35	9.345	-0.202	-0.60	MC
FRVA9B		9.293	-0.415	-1.20	9.338	-0.210	-0.62	MC
GU4LQC		9.867	0.158	0.46	9.293	-0.254	-0.75	MC
GWFW2T		9.518	-0.190	-0.55	8.977	-0.571	-1.69	XX
H8H8MB		10.092	0.383	1.11	9.897	0.349	1.03	MX
HBUHXR		9.508	-0.200	-0.58	9.518	-0.029	-0.09	MM
K7UTUP		10.002	0.293	0.85	9.393	-0.154	-0.46	MC
L6NJHC		9.585	-0.123	-0.36	9.787	0.239	0.71	MC
PJDTU8		9.395	-0.313	-0.90	9.165	-0.382	-1.13	MC
PN9K26		9.522	-0.187	-0.54	9.045	-0.502	-1.49	ME
RA4XWK		10.225	0.517	1.49	9.912	0.364	1.08	XX
TL9JQW		10.498	0.790	2.28	10.328	0.781	2.31	MM
TQFAT3		9.657	-0.052	-0.15	9.457	-0.091	-0.27	MC
TVDQ7W		9.758	0.050	0.14	9.498	-0.049	-0.15	MP
WEU4AW		9.230	-0.478	-1.38	9.132	-0.416	-1.23	MC
XH7EKD		9.493	-0.215	-0.62	9.212	-0.336	-0.99	ME
Y88ZFY		9.112	-0.597	-1.72	9.388	-0.159	-0.47	MC
YB92FV		9.651	-0.057	-0.17	9.608	0.061	0.18	MC
YHT4MY		9.935	0.227	0.65	10.068	0.521	1.54	XX

Summary Statistics

	Sample W15-W16	Sample W17-W18
Grand Means	9.7082 minutes	9.5474 minutes
Stnd Dev Btwn Labs	0.3468 minutes	0.3382 minutes

Statistics based on 31 of 31 reporting participants

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Samples W15-W16: EPDM compound, batch #1 & W17-W18: EPDM compound, batch #2

Key to Instrument Codes Reported by Participants

MC	Alpha Technologies [Monsanto] MDR 2000 or 2000E	MD	Alpha Tech. Rubber Process Analyzer (RPA 2000)
ME	Alpha Tech. MDR Premiere	MM	MonTech MDR 3000
MP	Alpha Technologies [Monsanto] MDR 2000P	MR	MonTech D-RPA 3000
MX	Rebuilt MonTech Alpha	XX	Instrument model not specified by lab

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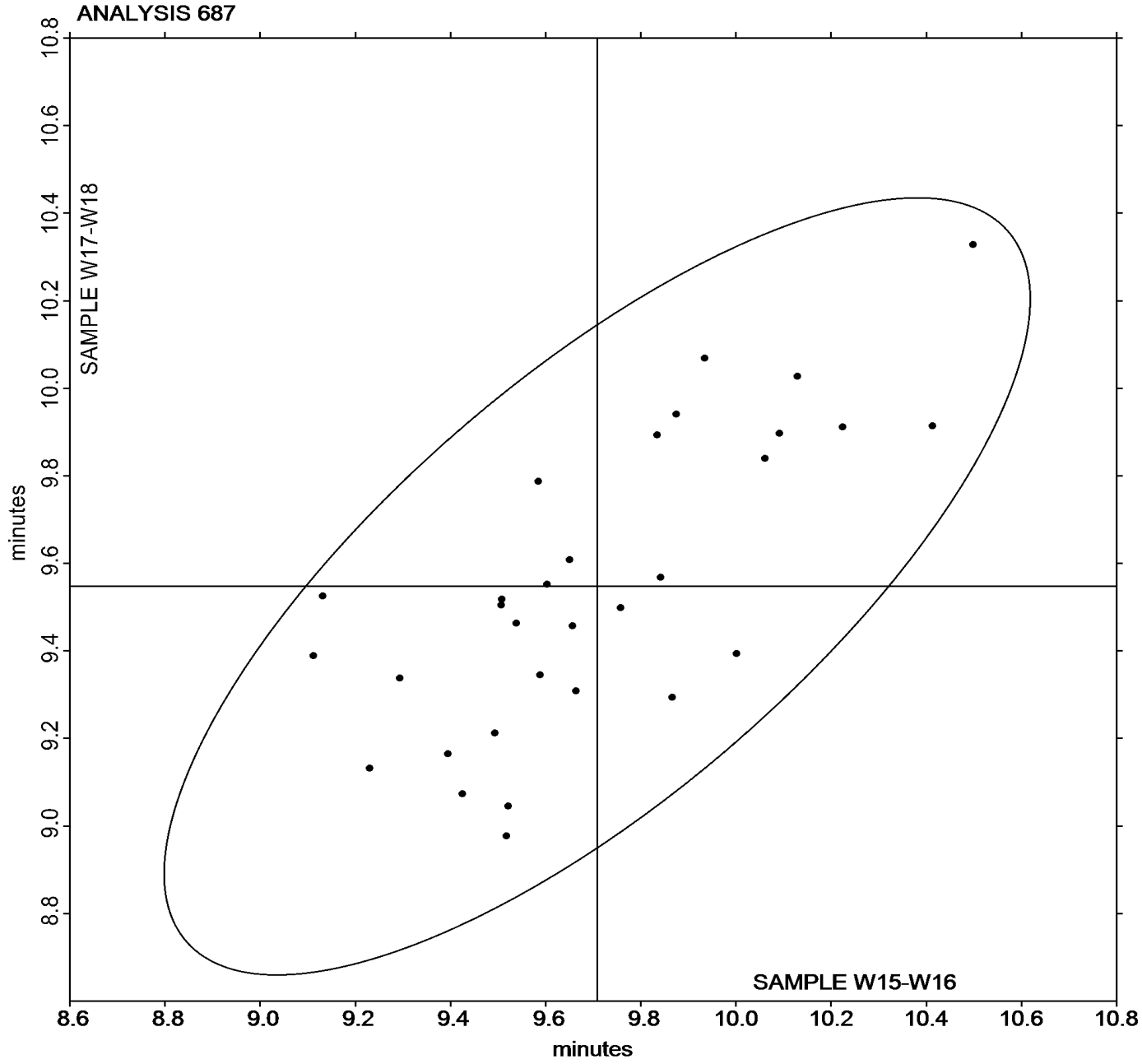
Grand Mean Sample **W15-W16** = 9.7082 minutes

Grand Mean Sample **W17-W18** = 9.5474 minutes



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WebCode	Data Flag	Sample W15-W16 Lab Mean	Sample W15-W16 Diff from Grand Mean	Sample W15-W16 CPV	Sample W17-W18 Lab Mean	Sample W17-W18 Diff from Grand Mean	Sample W17-W18 CPV	Instr Code
2K6NKX		1.623	0.014	0.05	2.050	-0.109	-0.35	MC
67W73L		1.828	0.219	0.77	2.395	0.236	0.76	MC
68N3PU		1.422	-0.187	-0.66	2.018	-0.141	-0.45	MD
78J6UP		1.353	-0.256	-0.90	1.865	-0.294	-0.94	MC
7XW73J		1.653	0.044	0.15	2.243	0.085	0.27	MC
967EGQ		1.533	-0.076	-0.27	1.998	-0.160	-0.51	MM
9A4VUK		1.405	-0.204	-0.72	1.952	-0.207	-0.66	ME
AAJEDG		1.975	0.366	1.29	2.348	0.190	0.61	MC
ARD8YF		1.860	0.251	0.88	2.228	0.070	0.22	MC
CWMAXF		1.668	0.059	0.21	2.225	0.066	0.21	XX
D8YUVH		1.452	-0.158	-0.56	2.043	-0.115	-0.37	MR
DXA9PJ		1.498	-0.111	-0.39	2.100	-0.059	-0.19	MD
DYXKAX		1.613	0.004	0.01	2.123	-0.035	-0.11	MC
FRVA9B		1.779	0.170	0.60	2.297	0.138	0.44	MC
GU4LQC		1.460	-0.149	-0.53	1.967	-0.192	-0.61	MC
GWFW2T		2.095	0.486	1.71	2.800	0.641	2.05	XX
H8H8MB		1.428	-0.181	-0.64	1.978	-0.180	-0.58	MX
HBUHXR	*	2.272	0.662	2.34	3.008	0.850	2.72	MM
K7UTUP		1.388	-0.221	-0.78	1.940	-0.219	-0.70	MC
L6NJHC		1.470	-0.139	-0.49	2.120	-0.039	-0.12	MC
PJDTU8		1.623	0.013	0.05	2.084	-0.074	-0.24	MC
PN9K26		1.372	-0.238	-0.84	1.974	-0.185	-0.59	ME
RA4XWK		1.132	-0.478	-1.69	1.495	-0.664	-2.12	MM
TL9JQW		1.588	-0.021	-0.07	2.142	-0.017	-0.05	MM
TQFAT3		1.344	-0.266	-0.94	1.981	-0.178	-0.57	MC
TVDQ7W		1.397	-0.213	-0.75	2.142	-0.017	-0.05	MP
WEU4AW		1.418	-0.191	-0.67	2.010	-0.149	-0.48	MC
XH7EKD		1.660	0.051	0.18	2.210	0.051	0.16	ME
Y88ZFY		1.553	-0.056	-0.20	2.043	-0.115	-0.37	MC
YB92FV		1.583	-0.027	-0.09	2.090	-0.068	-0.22	MC
YHT4MY	*	2.447	0.837	2.96	3.048	0.890	2.85	XX

Summary Statistics

	Sample W15-W16	Sample W17-W18
Grand Means	1.6095 lbf.in	2.1587 lbf.in
Stnd Dev Btwn Labs	0.2833 lbf.in	0.3125 lbf.in

Statistics based on 31 of 31 reporting participants

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Summary Statistics in SI Units

Grand Means		
	1.8185 dN.m	2.4390 dN.m
Stnd Dev Btwn Labs		
	0.3200 dN.m	0.3531 dN.m

Statistics based on 31 of 31 reporting participants

Samples W15-W16: EPDM compound, batch #1 & W17-W18: EPDM compound, batch #2

Key to Instrument Codes Reported by Participants

MC	Alpha Technologies [Monsanto] MDR 2000 or 2000E	MD	Alpha Tech. Rubber Process Analyzer (RPA 2000)
ME	Alpha Tech. MDR Premiere	MM	MonTech MDR 3000
MP	Alpha Technologies [Monsanto] MDR 2000P	MR	MonTech D-RPA 3000
MX	Rebuilt MonTech Alpha	XX	Instrument model not specified by lab

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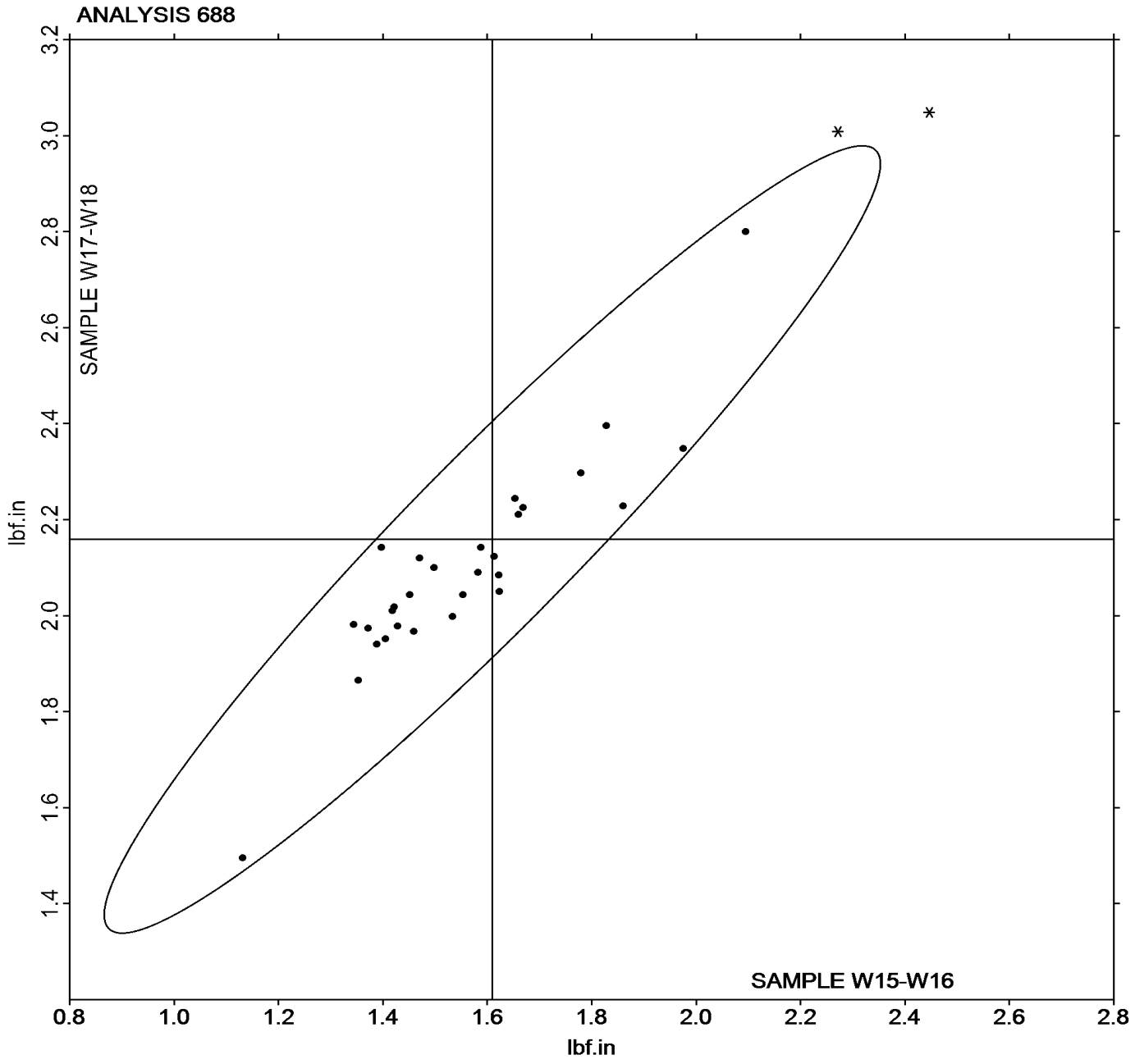
Grand Mean Sample **W15-W16** = 1.6095 lbf.in

Grand Mean Sample **W17-W18** = 2.1587 lbf.in



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WebCode	Data Flag	Sample W15-W16 Lab Mean	Diff from Grand Mean	CPV	Sample W17-W18 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2K6NKX		13.57	-0.03	-0.03	12.54	-0.16	-0.17	MC
67W73L		13.46	-0.14	-0.15	12.48	-0.22	-0.23	MC
68N3PU		13.36	-0.23	-0.26	12.31	-0.39	-0.41	MD
78J6UP		13.41	-0.18	-0.20	12.71	0.01	0.01	MC
7XW73J		13.73	0.14	0.15	12.65	-0.05	-0.05	MC
967EGQ		13.85	0.26	0.29	12.45	-0.25	-0.26	MM
9A4VUK		13.66	0.06	0.07	12.81	0.11	0.12	ME
AAJEDG		13.36	-0.23	-0.25	12.53	-0.16	-0.17	MC
ARD8YF	*	11.86	-1.73	-1.93	11.68	-1.02	-1.08	MC
CWMAXF		13.47	-0.13	-0.14	12.62	-0.07	-0.08	XX
D8YUVH	*	15.64	2.05	2.28	15.49	2.79	2.97	MR
DXA9PJ		13.18	-0.41	-0.45	12.25	-0.44	-0.47	MD
DYXKAX		13.04	-0.55	-0.61	12.06	-0.63	-0.67	MC
FRVA9B		14.02	0.43	0.47	13.24	0.54	0.58	MC
GU4LQC		13.59	0.00	0.00	12.28	-0.42	-0.44	MC
GWFW2T		15.55	1.95	2.18	14.70	2.01	2.14	XX
H8H8MB		13.74	0.14	0.16	12.50	-0.20	-0.21	MX
HBUHXR		13.05	-0.55	-0.61	12.54	-0.15	-0.16	MM
K7UTUP		13.61	0.02	0.02	12.35	-0.35	-0.37	MC
L6NJHC		14.12	0.53	0.59	13.68	0.99	1.05	MC
PJDTU8		13.22	-0.37	-0.41	11.79	-0.90	-0.96	MC
PN9K26		13.13	-0.46	-0.52	12.03	-0.67	-0.71	ME
RA4XWK		11.55	-2.04	-2.27	10.84	-1.86	-1.98	MM
TL9JQW		15.10	1.51	1.68	14.53	1.83	1.95	MM
TQFAT3		13.31	-0.28	-0.31	12.26	-0.44	-0.47	MC
TVDQ7W		12.67	-0.92	-1.03	11.88	-0.82	-0.87	MC
WEU4AW		13.28	-0.31	-0.35	12.44	-0.25	-0.27	MC
XH7EKD		13.47	-0.13	-0.14	12.57	-0.13	-0.14	ME
Y88ZFY		13.22	-0.37	-0.42	12.41	-0.28	-0.30	MC
YB92FV		13.63	0.03	0.04	12.90	0.20	0.21	MC
YHT4MY	*	15.51	1.92	2.14	14.06	1.37	1.46	TP

Summary Statistics

	Sample W15-W16	Sample W17-W18
Grand Means	13.592 lbf.in	12.695 lbf.in
Stnd Dev Btwn Labs	0.898 lbf.in	0.938 lbf.in

Statistics based on 31 of 31 reporting participants

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Summary Statistics in SI Units

Grand Means	15.357 dN.m	14.343 dN.m
Stnd Dev Btwn Labs	1.015 dN.m	1.060 dN.m

Statistics based on 31 of 31 reporting participants

Samples W15-W16: EPDM compound, batch #1 & W17-W18: EPDM compound, batch #2

Key to Instrument Codes Reported by Participants

MC	Alpha Technologies [Monsanto] MDR 2000 or 2000E	MD	Alpha Tech. Rubber Process Analyzer (RPA 2000)
ME	Alpha Tech. MDR Premiere	MM	MonTech MDR 3000
MR	MonTech D-RPA 3000	MX	Rebuilt MonTech Alpha
TP	Tech Pro MDR model MDPT	XX	Instrument model not specified by lab

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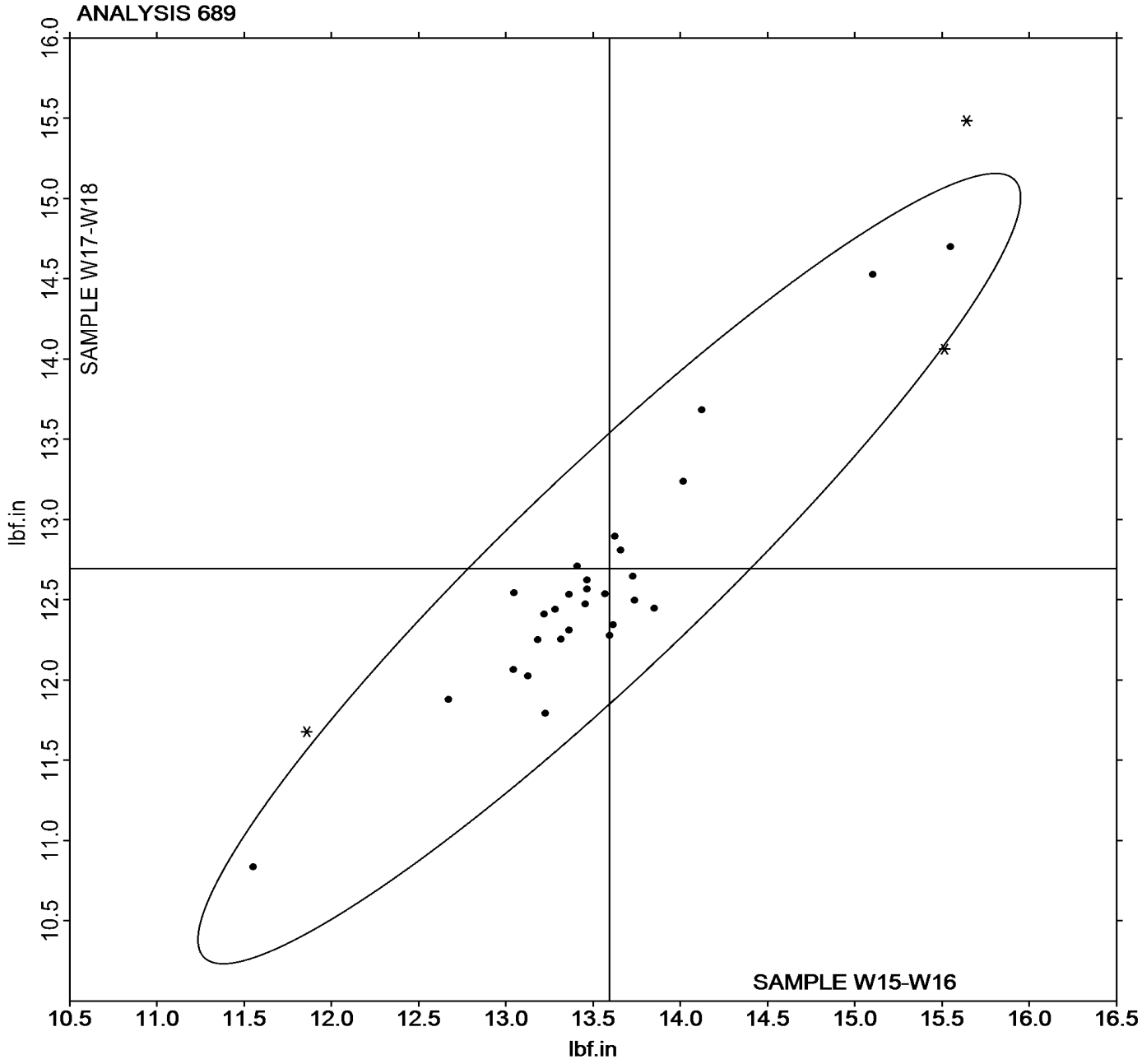
Grand Mean Sample **W15-W16** = 13.592 lbf.in

Grand Mean Sample **W17-W18** = 12.695 lbf.in



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WebCode	Data Flag	Sample E11-E12 Lab Mean	Diff from Grand Mean	CPV	Sample E13-E14 Lab Mean	Diff from Grand Mean	CPV	Instr Code
68N3PU		485.6	30.5	0.77	543.1	43.1	1.00	RP
967EGQ		434.7	-20.4	-0.51	472.0	-28.0	-0.65	XX
FRVA9B		502.5	47.4	1.20	516.1	16.1	0.37	RP
FWRXPH		417.3	-37.8	-0.96	464.2	-35.8	-0.83	RP
JWYEC7		454.3	-0.8	-0.02	495.0	-5.0	-0.12	XX
L6NJHC		402.5	-52.6	-1.33	445.7	-54.3	-1.26	PR
N46EY6		502.8	47.7	1.21	544.9	44.8	1.04	RP
PN9K26		482.4	27.3	0.69	561.7	61.7	1.44	XX
YB92FV		413.7	-41.4	-1.05	457.4	-42.6	-0.99	RP

Summary Statistics

	Sample E11-E12	Sample E13-E14
Grand Means	455.11 kPa	500.02 kPa
Stnd Dev Btwn Labs	39.59 kPa	43.01 kPa

Statistics based on 9 of 9 reporting participants

Samples E11-E12: EPDM compound, batch #1 & E13-E14: EPDM compound, batch #2

Key to Instrument Codes Reported by Participants

PR	PRPA 2000	RP	RPA 2000
XX	Instrument model not specified by lab		

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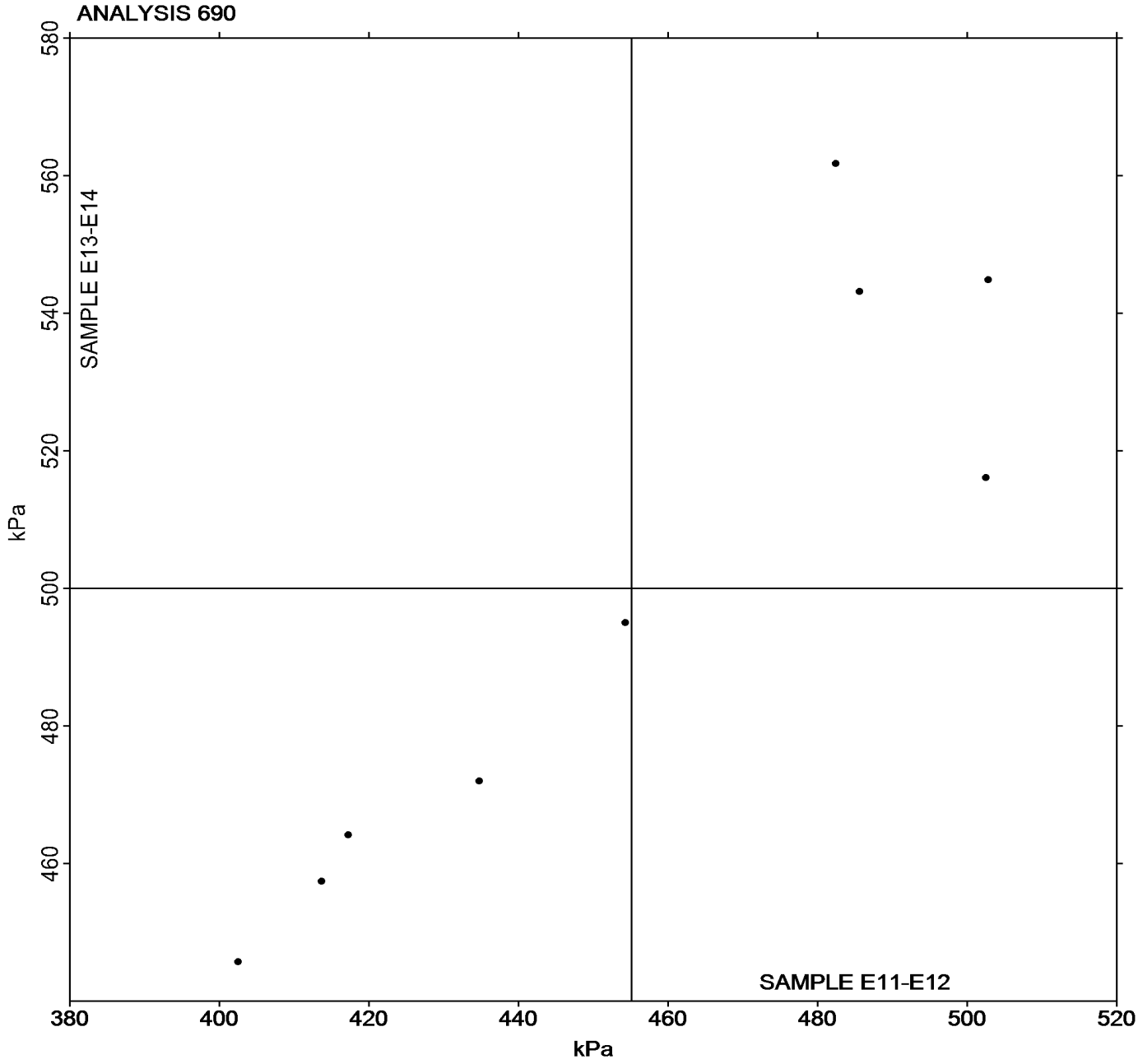
Grand Mean Sample **E11-E12** = 455.11 kPa

Grand Mean Sample **E13-E14** = 500.02 kPa



If fewer than 20 laboratories are included in an analysis, a control ellipse will not be drawn on the two-sample plot.

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WebCode	Data Flag	Sample E11-E12 Lab Mean	Sample E11-E12 Diff from Grand Mean	Sample E11-E12 CPV	Sample E13-E14 Lab Mean	Sample E13-E14 Diff from Grand Mean	Sample E13-E14 CPV	Instr Code
68N3PU		220.6	11.1	1.07	220.8	11.4	0.97	RP
967EGQ		207.7	-1.8	-0.17	206.7	-2.8	-0.24	XX
FRVA9B		207.9	-1.6	-0.16	207.4	-2.1	-0.18	RP
FWRXPH		212.8	3.3	0.32	207.2	-2.2	-0.19	RP
JWYEC7		216.4	6.9	0.66	217.2	7.7	0.65	XX
L6NJHC		202.8	-6.7	-0.65	200.3	-9.2	-0.78	PR
N46EY6		199.4	-10.1	-0.97	199.4	-10.1	-0.86	RP
PN9K26		225.3	15.8	1.52	231.7	22.2	1.89	XX
YB92FV		192.8	-16.8	-1.61	194.7	-14.8	-1.26	RP

Summary Statistics

	Sample E11-E12	Sample E13-E14
Grand Means	209.53 kPa	209.48 kPa
Stnd Dev Btwn Labs	10.41 kPa	11.75 kPa

Statistics based on 9 of 9 reporting participants

Samples E11-E12: EPDM compound, batch #1 & E13-E14: EPDM compound, batch #2

Key to Instrument Codes Reported by Participants

PR	PRPA 2000	RP	RPA 2000
XX	Instrument model not specified by lab		

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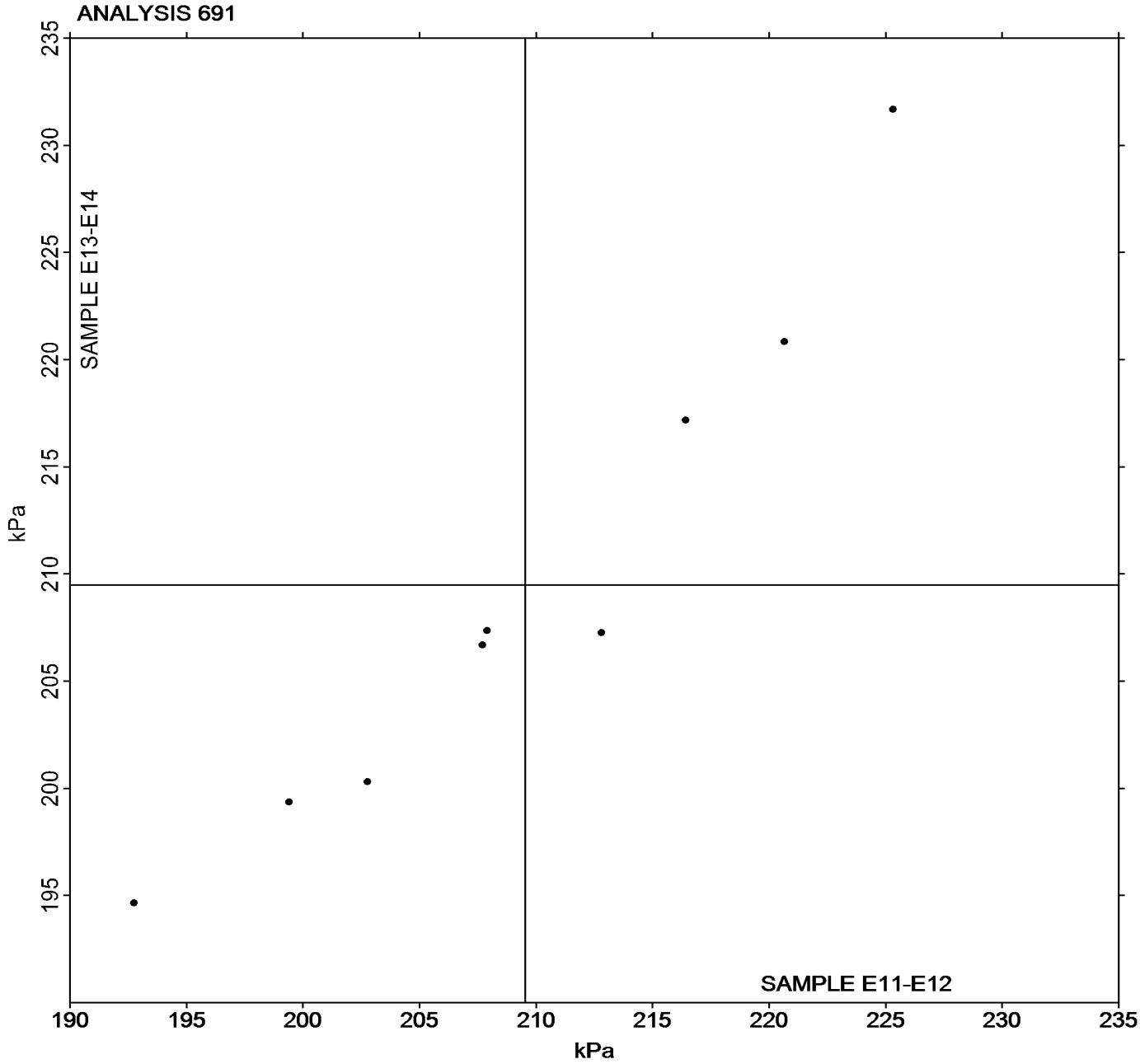
Grand Mean Sample **E11-E12** = 209.53 kPa

Grand Mean Sample **E13-E14** = 209.48 kPa



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WebCode	Data Flag	Sample E11-E12 Lab Mean	Sample E11-E12 Diff from Grand Mean	Sample E11-E12 CPV	Sample E13-E14 Lab Mean	Sample E13-E14 Diff from Grand Mean	Sample E13-E14 CPV	Instr Code
68N3PU		65.40	-0.10	-0.01	81.71	4.83	0.46	RP
967EGQ		64.77	-0.73	-0.06	74.05	-2.83	-0.27	XX
FRVA9B		84.17	18.68	1.65	86.33	9.45	0.91	RP
FWRXPH		53.37	-12.12	-1.07	67.15	-9.73	-0.93	RP
JWYEC7		68.67	3.18	0.28	78.01	1.13	0.11	XX
L6NJHC		52.56	-12.94	-1.14	65.35	-11.52	-1.10	PR
N46EY6		81.84	16.34	1.44	96.49	19.62	1.88	RP
PN9K26		61.93	-3.56	-0.31	77.56	0.68	0.07	XX
YB92FV		56.75	-8.75	-0.77	65.24	-11.63	-1.12	RP

Summary Statistics

	Sample E11-E12	Sample E13-E14
Grand Means	65.494 kPa	76.877 kPa
Stnd Dev Btwn Labs	11.347 kPa	10.429 kPa

Statistics based on 9 of 9 reporting participants

Samples E11-E12: EPDM compound, batch #1 & E13-E14: EPDM compound, batch #2

Key to Instrument Codes Reported by Participants

PR	PRPA 2000	RP	RPA 2000
XX	Instrument model not specified by lab		

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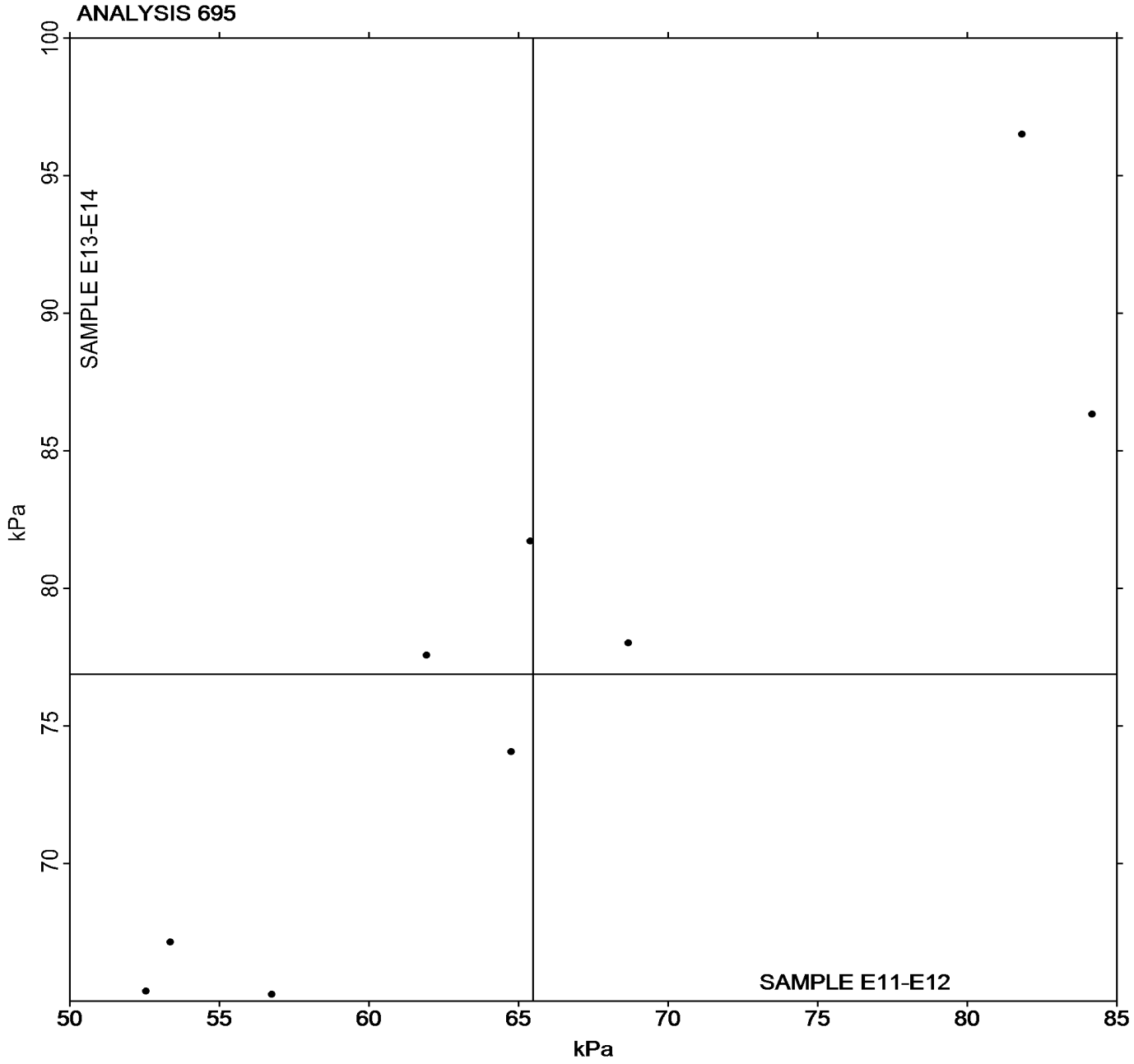
Grand Mean Sample **E11-E12** = 65.494 kPa

Grand Mean Sample **E13-E14** = 76.877 kPa



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WebCode	Data Flag	Sample E11-E12 Lab Mean	Diff from Grand Mean	CPV	Sample E13-E14 Lab Mean	Diff from Grand Mean	CPV	Instr Code
68N3PU		74.09	8.62	1.34	79.62	9.92	1.48	RP
967EGQ		64.30	-1.17	-0.18	68.15	-1.56	-0.23	XX
FRVA9B		68.97	3.51	0.54	69.41	-0.30	-0.04	RP
FWRXPH		58.05	-7.41	-1.15	63.64	-6.07	-0.91	XX
JWYEC7		66.93	1.47	0.23	69.75	0.04	0.01	XX
L6NJHC		57.91	-7.56	-1.17	62.77	-6.93	-1.04	PR
N46EY6		65.47	0.01	0.00	69.24	-0.46	-0.07	XX
PN9K26		74.68	9.21	1.43	81.26	11.56	1.73	XX
YB92FV		58.79	-6.68	-1.04	63.51	-6.19	-0.93	RP

Summary Statistics

	Sample E11-E12	Sample E13-E14
Grand Means	65.466 kPa	69.706 kPa
Stnd Dev Btwn Labs	6.439 kPa	6.688 kPa

Statistics based on 9 of 9 reporting participants

Samples E11-E12: EPDM compound, batch #1 & E13-E14: EPDM compound, batch #2

Key to Instrument Codes Reported by Participants

PR	PRPA 2000	RP	RPA 2000
XX	Instrument model not specified by lab		

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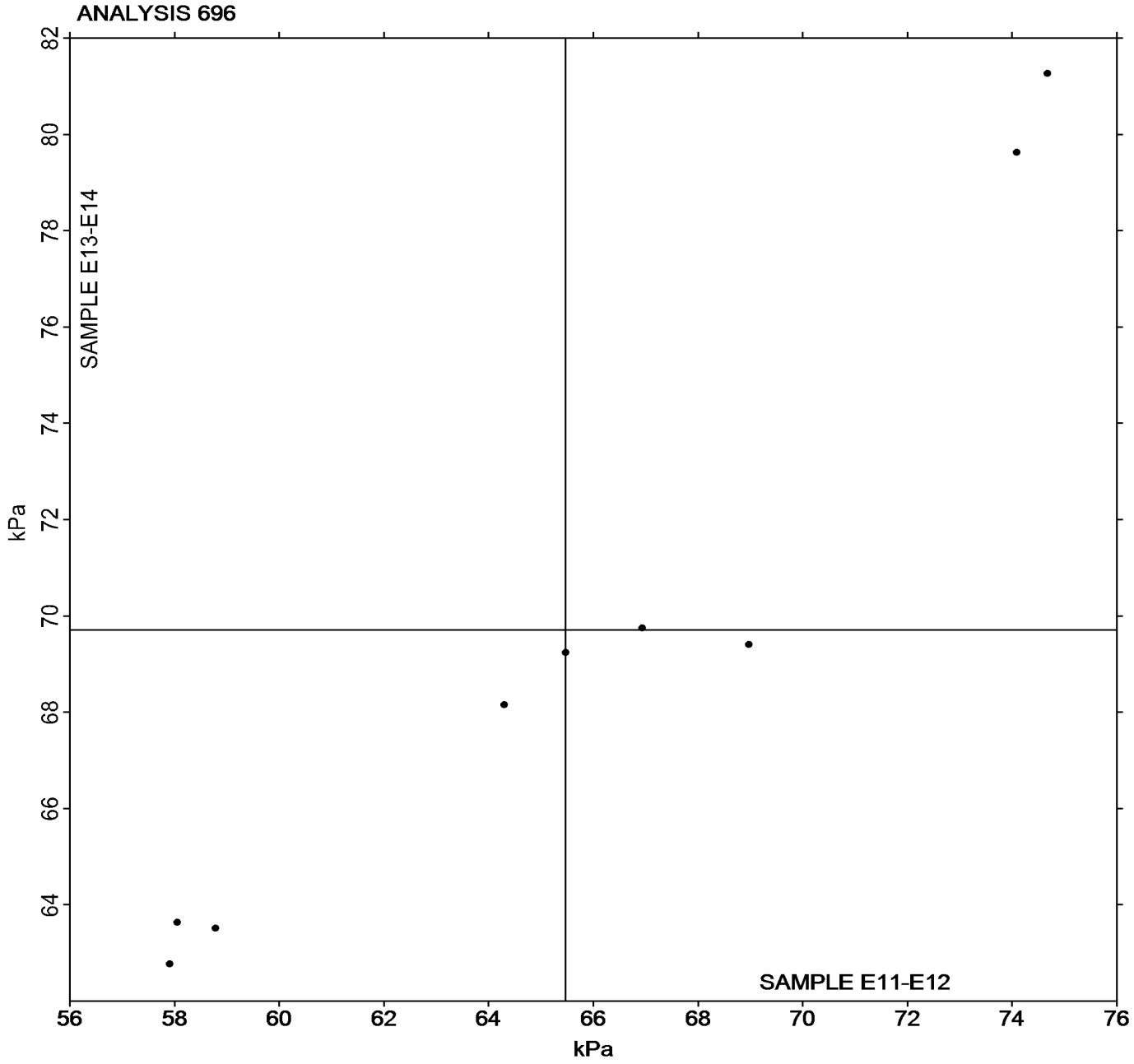
Grand Mean Sample **E11-E12** = 65.466 kPa

Grand Mean Sample **E13-E14** = 69.706 kPa



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-End of Report-

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