Collaborative Testing Services, Inc.

Rubber Interlaboratory Testing Program

Summary Report #219- 1st Qtr 2024

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
640	O-Ring Tensile Strength at Break
641	O-Ring Ultimate Elongation
642	O-Ring Stress at 100% Elongation
647	O-Ring Hardness (Shore A/Type A)
648	O-Ring Hardness (Shore M)
649	O-Ring Density
650	O-Ring 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
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

Analysis	Analysis Name
689	MDR Vulcanization Charac.: Maximum Torque
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 industries including rubber, plastics, fasteners and metals, containerboard, paper and color, wine, and hemp, 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 100 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 A41-A42 Lab Mean	Diff from Grand Mean	CPV	Sample A43-A44 Lab Mean	Diff from Grand Mean	CPV
3HY8TC		2,902.5	-295.7	-1.44	2,867.5	-333.8	-1.52
3T2FJA		3,180.0	-18.2	-0.09	3,015.0	-186.3	-0.85
3YP4DF		3,317.0	118.8	0.58	3,392.0	190.7	0.87
42A8LC		3,218.0	19.8	0.10	3,304.0	102.7	0.47
4RHYT9		3,224.5	26.3	0.13	3,230.5	29.2	0.13
64CRP3		3,388.8	190.6	0.93	3,320.3	119.0	0.54
6MLTCA		3,215.1	16.9	0.08	3,185.2	-16.1	-0.07
6ZCGT3		3,319.2	121.1	0.59	3,294.6	93.3	0.42
7UZ3DB		3,055.2	-142.9	-0.70	3,113.3	-88.0	-0.40
92TUYB		3,393.9	195.7	0.96	3,448.3	247.0	1.12
A4BLA4		3,490.4	292.2	1.43	3,465.0	263.7	1.20
AHEWU6		3,157.5	-40.7	-0.20	3,144.1	-57.2	-0.26
AQQ774		3,217.0	18.8	0.09	3,193.8	-7.5	-0.03
BF3G24		3,074.8	-123.3	-0.60	3,205.4	4.1	0.02
CBM9D4		3,235.5	37.3	0.18	3,344.5	143.2	0.65
D6X9AW		3,295.0	96.8	0.47	3,278.0	76.7	0.35
DDPG3Z		3,279.5	81.3	0.40	3,304.0	102.7	0.47
DRQFQW	*	2,892.1	-306.1	-1.50	3,207.5	6.2	0.03
E4HCHW	*	2,632.5	-565.7	-2.76	2,545.4	-655.9	-2.98
EMERQZ		3,422.0	223.8	1.09	3,300.5	99.2	0.45
F6AKBY		3,505.0	306.8	1.50	3,580.0	378.7	1.72
FHGDUX		3,623.8	425.6	2.08	3,512.1	310.8	1.41
FK3CWZ		3,350.5	152.3	0.74	3,438.0	236.7	1.08
FY24UX		2,994.0	-204.2	-1.00	2,915.8	-285.5	-1.30
GE9UVT		3,430.5	232.3	1.13	3,362.0	160.7	0.73
JACPEU		2,879.0	-319.2	-1.56	2,808.0	-393.3	-1.79
JG68KP		3,183.9	-14.3	-0.07	3,205.4	4.1	0.02
JUU7CR		3,143.7	-54.4	-0.27	3,153.1	-48.2	-0.22
KDPYWQ		3,154.7	-43.5	-0.21	3,048.5	-152.8	-0.69
KGQXFV		3,275.5	77.3	0.38	3,348.0	146.7	0.67
L3HGYT		3,189.0	-9.2	-0.04	3,210.5	9.2	0.04
LQBPFT		3,291.0	92.8	0.45	3,162.5	-38.8	-0.18
MRV39V		3,190.9	-7.3	-0.04	3,154.6	-46.7	-0.21
N7V2WR		3,327.0	128.8	0.63	3,437.0	235.7	1.07
NL63GL		3,356.0	157.9	0.77	3,469.4	268.1	1.22
NMVD6T		2,778.6	-419.6	-2.05	2,922.3	-279.0	-1.27
NRBLTT	*	3,477.0	278.8	1.36	3,802.0	600.7	2.73
NYCVZL		3,385.0	186.8	0.91	3,187.0	-14.3	-0.07

WebCode	Data Flag	Sample A41-A42 Lab Mean	Diff from Grand Mean	CPV	Sample A43-A44 Lab Mean	Diff from Grand Mean	CPV
NYU38N		3,103.8	-94.3	-0.46	3,247.4	46.1	0.21
PQXBFL		2,747.1	-451.1	-2.20	2,771.6	-429.7	-1.95
RK2EPL		3,044.5	-153.7	-0.75	2,848.5	-352.8	-1.60
T7JXCN		2,828.9	-369.2	-1.80	3,050.0	-151.3	-0.69
TAH98N		3,114.0	-84.1	-0.41	3,085.5	-115.8	-0.53
TNVVFK		3,205.0	6.8	0.03	2,885.0	-316.3	-1.44
TRXH9N	X	2,841.5	-356.7	-1.74	2,285.5	-915.8	-4.16
UDCPXM		3,464.3	266.1	1.30	3,353.3	152.0	0.69
URYQYN		2,956.5	-241.7	-1.18	3,226.0	24.7	0.11
V9G98E		3,195.0	-3.2	-0.02	3,130.0	-71.3	-0.32
VQVRTK		3,343.1	145.0	0.71	3,219.9	18.6	0.08
X6QVAF		3,311.0	112.8	0.55	3,208.5	7.2	0.03
XPE98D		2,946.2	-252.0	-1.23	2,878.5	-322.8	-1.47
YQYLZF		3,218.4	20.2	0.10	3,217.7	16.4	0.07
YWBA2C		3,203.0	4.8	0.02	3,344.6	143.3	0.65
YZAMLG		3,420.0	221.8	1.08	3,203.5	2.2	0.01
ZDBWPG	X	5,290.0	2,091.8	10.22	5,395.0	2,193.7	9.98
ZHQ6DF		3,140.1	-58.1	-0.28	3,103.8	-97.5	-0.44
ZRVCTF		3,164.0	-34.2	-0.17	3,392.0	190.7	0.87
ZVVMNF		3,247.0	48.8	0.24	3,232.0	30.7	0.14

Summary Statistics

	Sample A41-A42	Sample A43-A44
Grand Means	3,198.17 psi	3,201.30 psi
Stnd Dev Btwn Labs	204.73 psi	219.91 psi

Statistics based on 56 of 58 reporting participants

Summary Statistics in SI Units

	Sample A41-A42	Sample A43-A44
Grand Means	22.050 MPa	22.070 MPa
Stnd Dev Btwn Labs	1.412 MPa	1.520 MPa

Statistics based on 56 of 58 reporting participants

Samples A41-A42: Polyisoprene Compound & A43-A44: Polyisoprene Compound

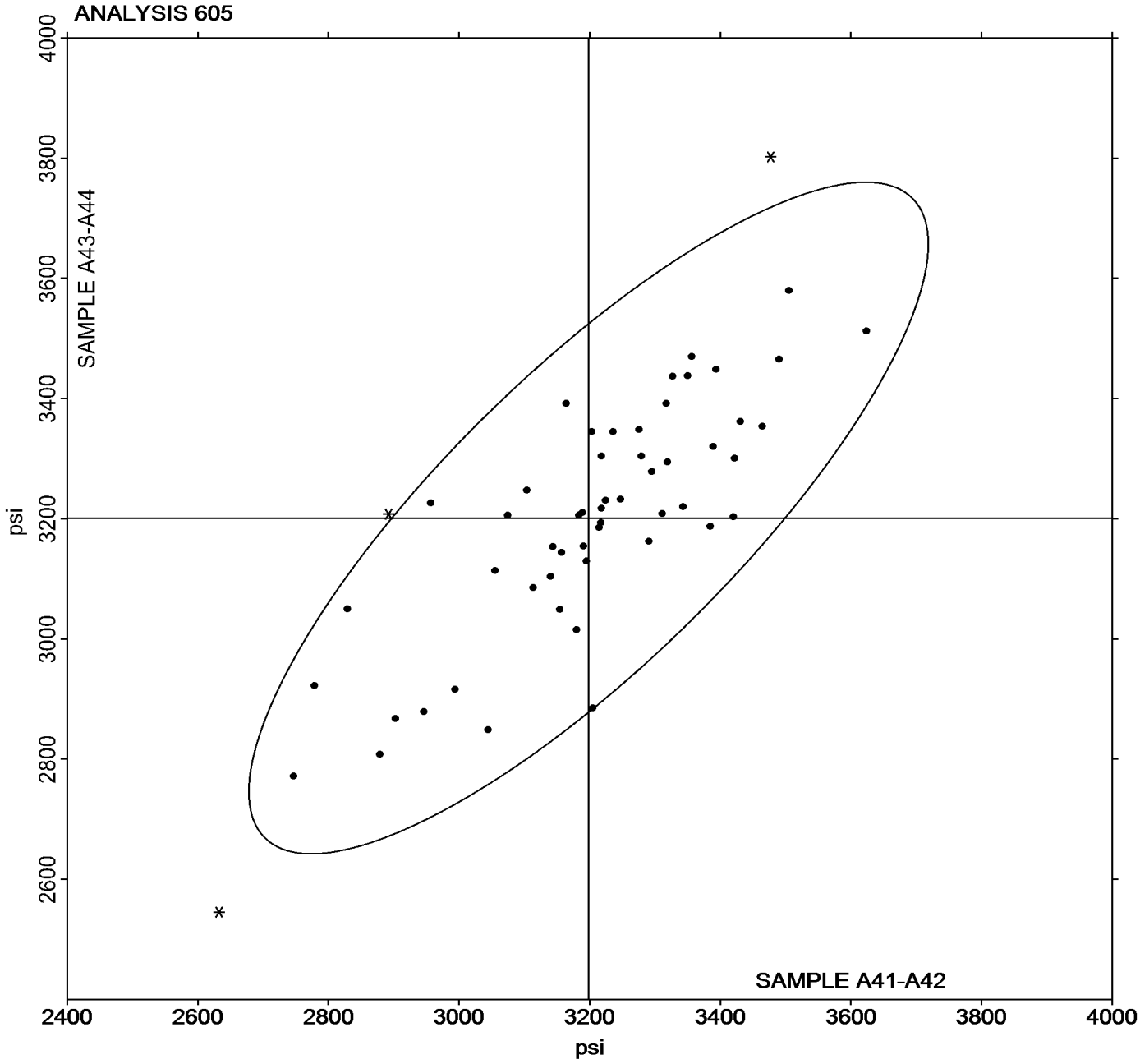
Comments on Assigned Data Flags for Test #605

TRXH9N (X) - Data for sample group A43-A44 are low.

ZDBWPG (X) - Data for all samples are high.

Grand Mean Sample **A41-A42** = 3,198.17 psi

Grand Mean Sample **A43-A44** = 3,201.30 psi



WebCode	Data Flag	Sample A41-A42 Lab Mean	Diff from Grand Mean	CPV	Sample A43-A44 Lab Mean	Diff from Grand Mean	CPV
3HY8TC	*	741.0	124.4	2.89	735.8	132.1	2.93
3T2FJA		645.0	28.4	0.66	610.0	6.3	0.14
3YP4DF		655.0	38.4	0.89	619.0	15.3	0.34
42A8LC		638.5	21.9	0.51	641.5	37.8	0.84
4RHYT9		630.5	13.9	0.32	634.0	30.3	0.67
64CRP3		616.6	0.1	0.00	606.3	2.6	0.06
6MLTCA		599.6	-17.0	-0.39	569.7	-34.0	-0.75
6ZCGT3		593.0	-23.6	-0.55	596.0	-7.7	-0.17
92TUYB		599.2	-17.4	-0.40	575.9	-27.8	-0.62
A4BLA4		661.0	44.4	1.03	601.5	-2.1	-0.05
AHEWU6		571.4	-45.2	-1.05	561.9	-41.8	-0.93
AQQ774		640.0	23.4	0.54	627.0	23.3	0.52
BF3G24		588.5	-28.1	-0.65	559.0	-44.7	-0.99
CBM9D4		624.0	7.4	0.17	613.5	9.8	0.22
D6X9AW		611.5	-5.1	-0.12	607.5	3.8	0.09
DDPG3Z		588.5	-28.1	-0.65	574.0	-29.7	-0.66
DRQFQW		574.5	-42.1	-0.98	604.5	0.8	0.02
E4HCHW	*	705.0	88.4	2.05	724.0	120.3	2.67
EMERQZ		648.0	31.4	0.73	620.0	16.3	0.36
F6AKBY	*	740.0	123.4	2.86	705.5	101.8	2.26
FHGDUX		586.5	-30.1	-0.70	567.5	-36.2	-0.80
FK3CWZ		649.0	32.4	0.75	634.0	30.3	0.67
FY24UX		593.2	-23.4	-0.54	584.2	-19.5	-0.43
GE9UVT		636.0	19.4	0.45	596.5	-7.2	-0.16
JACPEU		576.0	-40.6	-0.94	569.0	-34.7	-0.77
JG68KP	X	835.4	218.8	5.08	715.5	111.8	2.48
JUU7CR		537.5	-79.1	-1.84	540.0	-63.7	-1.41
KDPYWQ		626.3	9.7	0.23	649.9	46.2	1.02
KGQXFV		615.0	-1.6	-0.04	630.0	26.3	0.58
L3HGYT		545.5	-71.1	-1.65	528.0	-75.7	-1.68
LQBPFT		573.5	-43.1	-1.00	554.0	-49.7	-1.10
MRV39V		610.5	-6.1	-0.14	627.0	23.3	0.52
N7V2WR		648.5	31.9	0.74	618.5	14.8	0.33
NL63GL		632.7	16.1	0.37	590.2	-13.5	-0.30
NMVD6T		593.4	-23.2	-0.54	578.9	-24.8	-0.55
NRBLTT		620.0	3.4	0.08	594.0	-9.7	-0.21
NYCVZL		634.0	17.4	0.40	618.0	14.3	0.32
NYU38N		601.5	-15.1	-0.35	578.0	-25.7	-0.57

WebCode	Data Flag	Sample A41-A42 Lab Mean	Diff from Grand Mean	CPV	Sample A43-A44 Lab Mean	Diff from Grand Mean	CPV
PQXBFL		575.2	-41.3	-0.96	598.4	-5.3	-0.12
RK2EPL		718.5	101.9	2.37	702.0	98.3	2.18
T7JXCN	X	527.3	-89.2	-2.07	591.4	-12.3	-0.27
TAH98N		617.7	1.1	0.02	619.7	16.0	0.36
TNVVFK		630.0	13.4	0.31	611.0	7.3	0.16
TRXH9N	*	610.0	-6.6	-0.15	541.0	-62.7	-1.39
UDCPXM		575.5	-41.1	-0.95	583.5	-20.2	-0.45
URYQYN		624.0	7.4	0.17	657.5	53.8	1.19
V9G98E		612.5	-4.1	-0.09	583.0	-20.7	-0.46
VQVRTK		652.0	35.4	0.82	597.0	-6.7	-0.15
X6QVAF		531.0	-85.6	-1.99	521.0	-82.7	-1.83
XPE98D		583.7	-32.9	-0.76	531.6	-72.1	-1.60
YQYLZF		620.5	3.9	0.09	620.0	16.3	0.36
YWBA2C		597.0	-19.6	-0.45	599.5	-4.2	-0.09
YZAMLG		627.5	10.9	0.25	600.5	-3.2	-0.07
ZDBWPG		562.0	-54.6	-1.27	536.5	-67.2	-1.49
ZHQ6DF		614.7	-1.9	-0.04	614.7	11.0	0.24
ZRVCTF		583.5	-33.1	-0.77	602.0	-1.7	-0.04
ZVVMNF		627.0	10.4	0.24	638.5	34.8	0.77

Summary Statistics

	Sample A41-A42	Sample A43-A44
Grand Means	616.58 percent	603.66 percent
Stnd Dev Btwn Labs	43.08 percent	45.09 percent

Statistics based on 55 of 57 reporting participants

Samples A41-A42: Polyisoprene Compound & A43-A44: Polyisoprene Compound

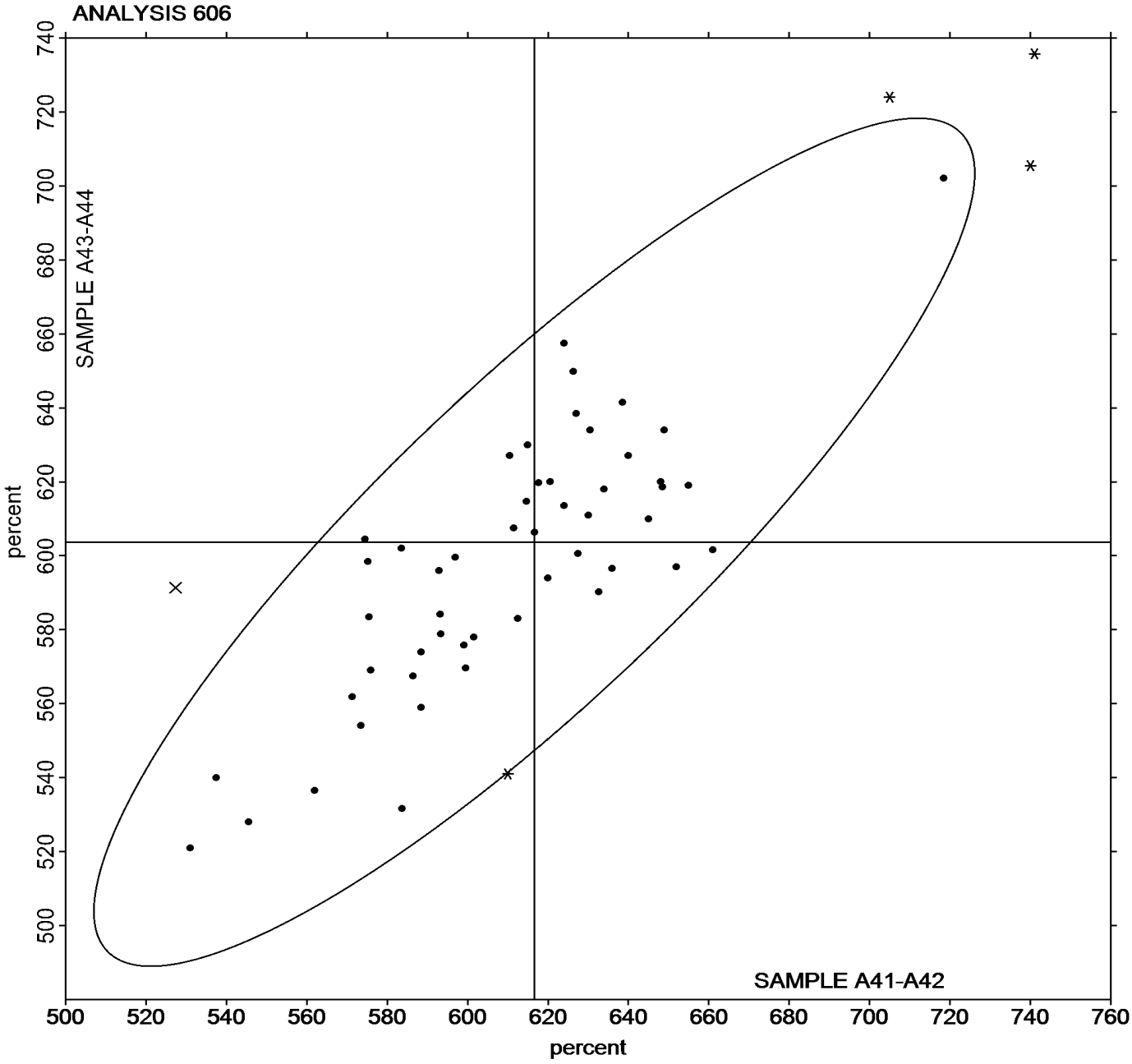
Comments on Assigned Data Flags for Test #606

JG68KP (X) - Data for sample group A41-A42 are high. Inconsistent within the determinations of sample group A41-A42.

T7JXCN (X) - Inconsistent in testing between samples.

Grand Mean Sample **A41-A42** = 616.58 percent

Grand Mean Sample **A43-A44** = 603.66 percent



WebCode	Data Flag	Sample A41-A42 Lab Mean	Diff from Grand Mean	CPV	Sample A43-A44 Lab Mean	Diff from Grand Mean	CPV
3HY8TC	*	662.3	-321.3	-2.94	708.3	-337.8	-2.44
3T2FJA		923.0	-60.5	-0.55	1,020.0	-26.1	-0.19
3YP4DF		928.5	-55.0	-0.50	1,102.5	56.4	0.41
42A8LC		934.0	-49.5	-0.45	911.5	-134.6	-0.97
4RHYT9		970.0	-13.5	-0.12	934.0	-112.1	-0.81
64CRP3		1,103.8	120.3	1.10	1,127.8	81.8	0.59
6MLTCA		1,034.2	50.6	0.46	1,188.0	141.9	1.03
6ZCGT3		1,035.6	52.1	0.48	1,004.4	-41.7	-0.30
92TUYB		1,007.3	23.8	0.22	1,187.1	141.1	1.02
A4BLA4		962.3	-21.2	-0.19	1,173.4	127.3	0.92
AHEWU6		1,094.3	110.7	1.01	1,152.9	106.8	0.77
AQQ774		925.3	-58.2	-0.53	955.8	-90.3	-0.65
BF3G24		1,018.2	34.7	0.32	1,195.1	149.1	1.08
CBM9D4		1,009.0	25.5	0.23	1,057.0	10.9	0.08
DDPG3Z		959.0	-24.5	-0.22	1,075.5	29.4	0.21
DRQFQW		941.3	-42.2	-0.39	955.8	-90.3	-0.65
E4HCHW		760.7	-222.8	-2.04	759.3	-286.8	-2.07
EMERQZ		977.5	-6.0	-0.06	1,000.0	-46.1	-0.33
F6AKBY		990.5	7.0	0.06	1,142.4	96.3	0.70
FHGDUX		1,219.1	235.5	2.16	1,232.1	186.0	1.35
FK3CWZ		897.5	-86.0	-0.79	1,054.5	8.4	0.06
FY24UX		938.3	-45.2	-0.41	923.6	-122.5	-0.89
GE9UVT		941.5	-42.0	-0.38	1,073.0	26.9	0.19
JACPEU		1,015.0	31.5	0.29	1,027.5	-18.6	-0.13
JG68KP		767.9	-215.7	-1.98	823.1	-223.0	-1.61
JUU7CR		1,169.0	185.5	1.70	1,191.5	145.4	1.05
KDPYWQ		938.4	-45.1	-0.41	794.5	-251.6	-1.82
KGQXFV		963.0	-20.5	-0.19	1,019.0	-27.1	-0.20
L3HGYT	*	1,272.0	288.5	2.64	1,309.0	262.9	1.90
LQBPFT		1,113.5	130.0	1.19	1,097.0	50.9	0.37
MRV39V		936.2	-47.3	-0.43	907.9	-138.1	-1.00
N7V2WR		920.0	-63.5	-0.58	1,075.5	29.4	0.21
NL63GL		951.9	-31.6	-0.29	1,207.8	161.7	1.17
NMVD6T		890.4	-93.1	-0.85	988.4	-57.6	-0.42
NRBLTT		1,048.5	65.0	0.60	1,292.0	245.9	1.78
NYCVZL		950.0	-33.5	-0.31	936.0	-110.1	-0.80
NYU38N		954.4	-29.2	-0.27	1,139.3	93.2	0.67
PQXBFL		945.5	-38.0	-0.35	899.3	-146.8	-1.06

WebCode	Data Flag	Sample A41-A42 Lab Mean	Diff from Grand Mean	CPV	Sample A43-A44 Lab Mean	Diff from Grand Mean	CPV
TAH98N		926.7	-56.8	-0.52	916.4	-129.7	-0.94
TNVVFK		913.0	-70.5	-0.65	871.5	-174.6	-1.26
TRXH9N		972.8	-10.8	-0.10	1,031.0	-15.1	-0.11
V9G98E		927.0	-56.5	-0.52	1,064.5	18.4	0.13
VQVRTK		1,035.6	52.1	0.48	1,216.9	170.8	1.24
X6QVAF	*	1,274.0	290.5	2.66	1,314.5	268.4	1.94
XPE98D		964.1	-19.4	-0.18	1,118.9	72.8	0.53
YQYLZF		920.3	-63.2	-0.58	925.3	-120.7	-0.87
YWBA2C		1,051.2	67.6	0.62	1,112.9	66.8	0.48
YZAMLG		986.5	3.0	0.03	1,102.5	56.4	0.41
ZDBWPG	X	1,768.0	784.5	7.19	2,052.5	1,006.4	7.28
ZHQ6DF		1,017.4	33.9	0.31	988.4	-57.6	-0.42
ZRVCTF		1,062.0	78.5	0.72	1,084.0	37.9	0.27
ZVVMNF		1,040.0	56.5	0.52	961.0	-85.1	-0.62

Summary Statistics

	Sample A41-A42	Sample A43-A44
Grand Means	983.52 psi	1,046.07 psi
Stnd Dev Btwn Labs	109.15 psi	138.28 psi

Statistics based on 51 of 52 reporting participants

Summary Statistics in SI Units

	Sample A41-A42	Sample A43-A44
Grand Means	6.7810 MPa	7.2100 MPa
Stnd Dev Btwn Labs	0.7526 MPa	0.9500 MPa

Statistics based on 51 of 52 reporting participants

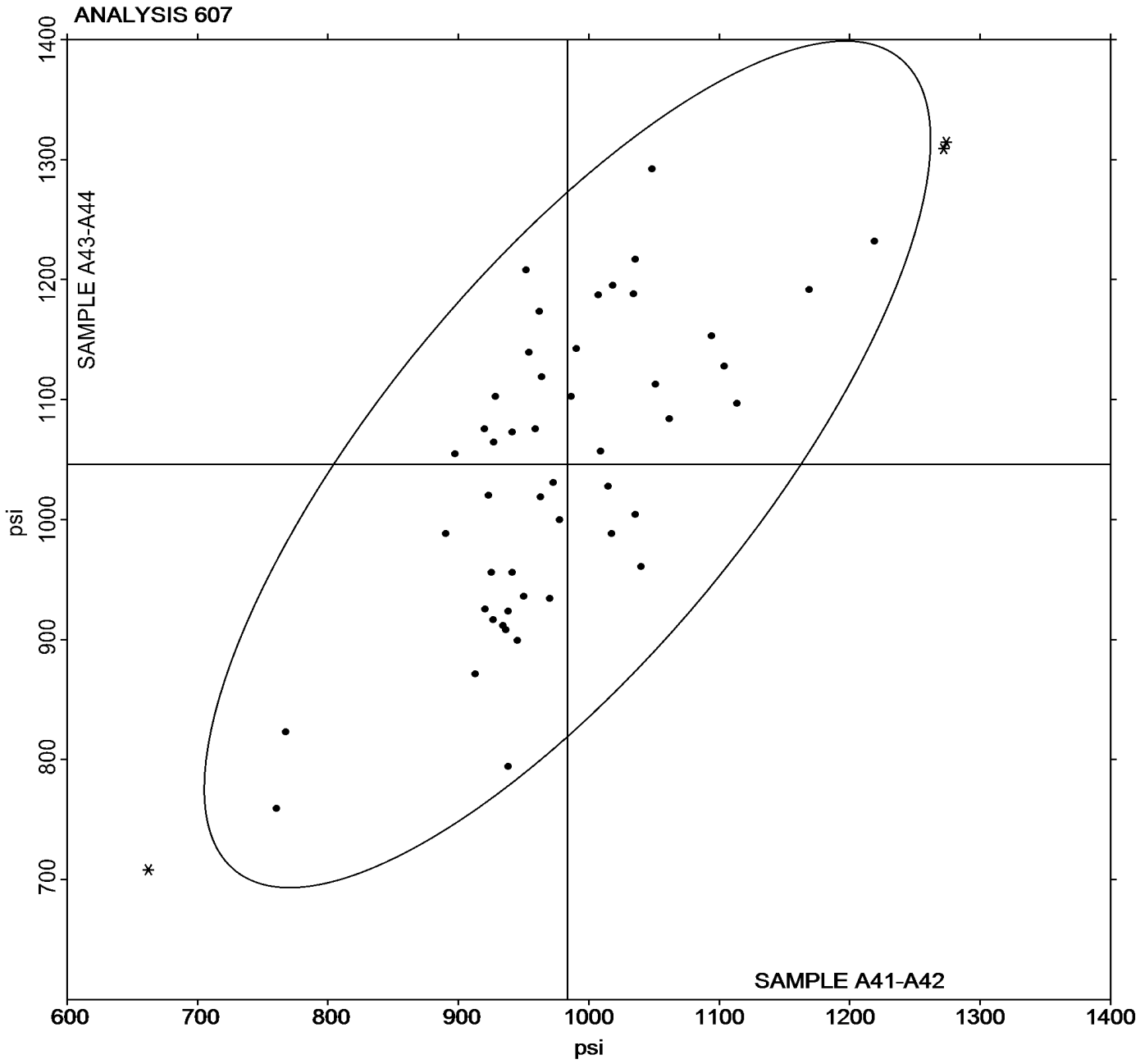
Samples A41-A42: Polyisoprene Compound & A43-A44: Polyisoprene Compound

Comments on Assigned Data Flags for Test #607

ZDBWPG (X) - Data for all samples are high.

Grand Mean Sample **A41-A42** = 983.52 psi

Grand Mean Sample **A43-A44** = 1,046.07 psi



WebCode	Data Flag	Sample A41-A42 Lab Mean	Diff from Grand Mean	CPV	Sample A43-A44 Lab Mean	Diff from Grand Mean	CPV
3HY8TC		190.3	-33.2	-1.65	197.5	-38.4	-1.27
3T2FJA		222.5	-1.0	-0.05	232.0	-3.9	-0.13
3YP4DF		221.0	-2.5	-0.12	258.0	22.1	0.73
42A8LC		214.5	-9.0	-0.45	215.0	-20.9	-0.69
4RHYT9		212.0	-11.5	-0.57	213.5	-22.4	-0.74
64CRP3		227.5	4.0	0.20	235.5	-0.4	-0.01
6MLTCA		232.8	9.3	0.46	272.0	36.1	1.19
6ZCGT3		223.4	-0.1	0.00	212.5	-23.4	-0.77
92TUYB		221.9	-1.5	-0.08	245.8	10.0	0.33
A4BLA4		208.7	-14.7	-0.73	245.6	9.7	0.32
AHEWU6		214.5	-8.9	-0.44	228.1	-7.8	-0.26
AQQ774		214.7	-8.8	-0.44	225.5	-10.3	-0.34
BF3G24		256.0	32.5	1.62	293.0	57.1	1.89
CBM9D4		230.5	7.0	0.35	237.0	1.1	0.04
D6X9AW		216.5	-7.0	-0.35	229.0	-6.9	-0.23
DDPG3Z		206.5	-17.0	-0.84	226.5	-9.4	-0.31
DRQFQW		206.0	-17.5	-0.87	206.0	-29.9	-0.99
E4HCHW		210.3	-13.1	-0.65	202.3	-33.5	-1.11
EMERQZ		228.5	5.0	0.25	240.0	4.1	0.14
F6AKBY		261.8	38.3	1.91	297.2	61.3	2.03
FHGDUX	*	282.1	58.6	2.92	284.3	48.4	1.60
FK3CWZ		212.0	-11.5	-0.57	248.0	12.1	0.40
FY24UX		217.8	-5.6	-0.28	215.6	-20.2	-0.67
GE9UVT		200.0	-23.5	-1.17	232.0	-3.9	-0.13
JACPEU		220.0	-3.5	-0.17	222.5	-13.4	-0.44
JG68KP		185.3	-38.2	-1.90	204.8	-31.1	-1.03
JUU7CR		245.8	22.4	1.11	255.3	19.4	0.64
KDPYWQ		222.2	-1.2	-0.06	190.6	-45.3	-1.50
KGQXFV		217.5	-6.0	-0.30	233.0	-2.9	-0.09
L3HGYT	X	328.0	104.5	5.21	316.5	80.6	2.66
LQBPFT		234.5	11.0	0.55	232.5	-3.4	-0.11
MRV39V		223.4	-0.1	0.00	216.8	-19.0	-0.63
N7V2WR		211.5	-12.0	-0.60	241.5	5.6	0.19
NL63GL		218.2	-5.3	-0.26	267.9	32.0	1.06
NMVD6T		202.5	-21.0	-1.04	214.6	-21.2	-0.70
NRBLTT		254.5	31.0	1.55	309.5	73.6	2.43
NYCVZL		218.5	-5.0	-0.25	216.0	-19.9	-0.66
NYU38N		216.1	-7.3	-0.37	250.9	15.0	0.50

Rubber Interlaboratory Testing Program

Analysis 608

Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample A41-A42 Lab Mean	Sample A41-A42 Diff from Grand Mean	Sample A41-A42 CPV	Sample A43-A44 Lab Mean	Sample A43-A44 Diff from Grand Mean	Sample A43-A44 CPV
PQXBFL		191.7	-31.7	-1.58	177.6	-58.3	-1.92
TAH98N		226.5	3.1	0.15	225.3	-10.6	-0.35
TNVVFK		211.5	-12.0	-0.60	200.0	-35.9	-1.18
TRXH9N		264.0	40.5	2.02	274.0	38.1	1.26
UDCPXM		221.9	-1.5	-0.08	195.1	-40.8	-1.35
V9G98E		211.0	-12.5	-0.62	227.5	-8.4	-0.28
VQVRTK		227.5	4.0	0.20	252.3	16.4	0.54
X6QVAF	*	281.5	58.0	2.89	324.0	88.1	2.91
XPE98D		218.4	-5.1	-0.25	239.9	4.0	0.13
YQYLZF		210.3	-13.1	-0.65	212.5	-23.4	-0.77
YWBA2C		236.7	13.2	0.66	248.3	12.4	0.41
YZAMLG		222.5	-1.0	-0.05	242.5	6.6	0.22
ZDBWPG	X	406.5	183.0	9.11	423.5	187.6	6.20
ZHQ6DF		235.7	12.2	0.61	219.7	-16.1	-0.53
ZRVCTF		235.5	12.0	0.60	243.0	7.1	0.24
ZVVMNF	X	293.0	69.5	3.46	278.0	42.1	1.39

Summary Statistics

	Sample A41-A42	Sample A43-A44
Grand Means	223.46 psi	235.87 psi
Stnd Dev Btwn Labs	20.08 psi	30.28 psi

Statistics based on 51 of 54 reporting participants

Summary Statistics in SI Units

	Sample A41-A42	Sample A43-A44
Grand Means	1.5407 MPa	1.6300 MPa
Stnd Dev Btwn Labs	0.1385 MPa	0.2100 MPa

Statistics based on 51 of 54 reporting participants

Samples A41-A42: Polyisoprene Compound & A43-A44: Polyisoprene Compound

Comments on Assigned Data Flags for Test #608

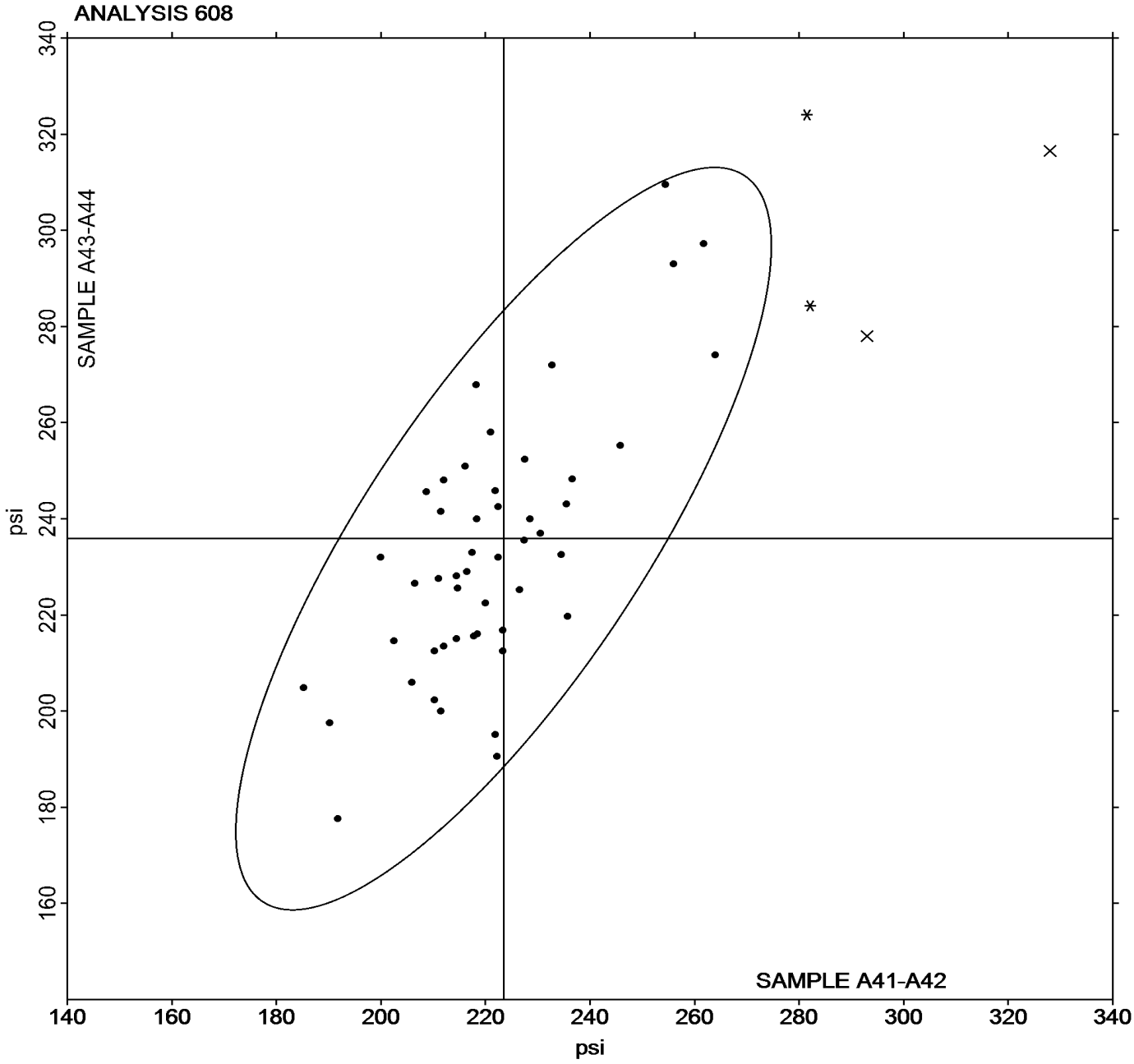
L3HGYT (X) - Data for sample group A41-A42 are high.

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

ZVVMNF (X) - Data for sample group A41-A42 are high.

Grand Mean Sample **A41-A42** = 223.46 psi

Grand Mean Sample **A43-A44** = 235.87 psi



WebCode	Data Flag	Sample A41-A42 Lab Mean	Diff from Grand Mean	CPV	Sample A43-A44 Lab Mean	Diff from Grand Mean	CPV	Instr Code
3HY8TC		50.00	-0.39	-0.23	52.00	1.25	0.67	BT
3T2FJA		53.00	2.61	1.55	53.00	2.25	1.20	BT
3YP4DF		51.00	0.61	0.36	53.00	2.25	1.20	BT
42A8LC		48.00	-2.39	-1.43	48.50	-2.25	-1.21	BT
4RHYT9		51.00	0.61	0.36	50.60	-0.15	-0.08	HH
64CRP3		52.25	1.86	1.11	53.25	2.50	1.33	HH
6MLTCA		50.95	0.56	0.33	52.90	2.15	1.15	BT
6YCQE8		50.50	0.11	0.06	50.50	-0.25	-0.14	BT
6ZCGT3		51.00	0.61	0.36	50.50	-0.25	-0.14	BT
7UZ3DB		47.00	-3.39	-2.02	46.50	-4.25	-2.28	BT
92TUYB		51.80	1.41	0.84	53.30	2.55	1.36	BT
A4BLA4		49.95	-0.44	-0.26	49.10	-1.65	-0.88	BT
AHEWU6		49.00	-1.39	-0.83	49.00	-1.75	-0.94	BT
AQQ774		49.50	-0.89	-0.53	52.00	1.25	0.67	BT
BF3G24		49.00	-1.39	-0.83	49.50	-1.25	-0.67	BT
CBM9D4		51.50	1.11	0.66	52.50	1.75	0.93	BT
D6X9AW		49.85	-0.54	-0.32	50.45	-0.30	-0.16	BT
DDPG3Z		49.50	-0.89	-0.53	51.50	0.75	0.40	BT
DFGFGY		50.00	-0.39	-0.23	51.50	0.75	0.40	HH
DRQFQW		49.30	-1.09	-0.65	49.00	-1.75	-0.94	BT
E4HCHW		48.85	-1.54	-0.92	48.40	-2.35	-1.26	BT
EMERQZ		51.50	1.11	0.66	52.50	1.75	0.93	BT
F6AKBY		51.00	0.61	0.36	50.50	-0.25	-0.14	HH
FHGDUX	*	55.30	4.91	2.92	56.10	5.35	2.86	BT
FY24UX		51.00	0.61	0.36	50.50	-0.25	-0.14	BT
GE9UVT		49.10	-1.29	-0.77	49.55	-1.20	-0.64	BT
GVCGCU		46.95	-3.44	-2.05	47.45	-3.30	-1.77	BT
JACPEU	X	50.50	0.11	0.06	45.00	-5.75	-3.08	BT
JG68KP		52.50	2.11	1.26	53.00	2.25	1.20	HH
JUU7CR		48.10	-2.29	-1.37	48.85	-1.90	-1.02	BT
KDPYWQ		49.55	-0.84	-0.50	47.95	-2.80	-1.50	BT
KGQXFV		50.00	-0.39	-0.23	50.00	-0.75	-0.40	HH
L3HGYT		50.95	0.56	0.33	52.20	1.45	0.77	HH
LQBPFT		48.41	-1.98	-1.18	49.91	-0.84	-0.45	BT
M8AYYP		51.50	1.11	0.66	53.50	2.75	1.47	HH
MRV39V		50.45	0.06	0.03	50.00	-0.75	-0.40	BT
N7V2WR		51.20	0.81	0.48	52.20	1.45	0.77	BT
NL63GL	*	47.75	-2.64	-1.58	51.00	0.25	0.13	BT

WebCode	Data Flag	Sample A41-A42 Lab Mean	Diff from Grand Mean	CPV	Sample A43-A44 Lab Mean	Diff from Grand Mean	CPV	Instr Code
NMVD6T	M	50.00	-0.39	-0.23	49.00	-1.75	-0.94	BT
NRBLTT		52.00	1.61	0.96	52.50	1.75	0.93	BT
NYCVZL		52.00	1.61	0.96	52.25	1.50	0.80	BT
NYU38N		50.10	-0.29	-0.18	51.30	0.55	0.29	BT
PQXBFL	*	52.35	1.96	1.17	50.10	-0.65	-0.35	BT
PUWMCL		49.20	-1.19	-0.71	49.60	-1.15	-0.62	BT
RK2EPL	X	56.50	6.11	3.64	55.00	4.25	2.27	HH
T7JXCN	X	61.55	11.16	6.65	62.55	11.80	6.31	BT
TAH98N		48.00	-2.39	-1.43	47.50	-3.25	-1.74	BT
TNVVFK		50.50	0.11	0.06	49.00	-1.75	-0.94	HH
TRXH9N		51.50	1.11	0.66	52.50	1.75	0.93	BT
UDCPXM	X	49.55	-0.84	-0.50	46.20	-4.55	-2.44	BT
URYQYN		48.50	-1.89	-1.13	49.50	-1.25	-0.67	BT
V9G98E		50.00	-0.39	-0.23	50.00	-0.75	-0.40	HH
VQVRTK		48.45	-1.94	-1.16	48.55	-2.20	-1.18	BT
W4Z2JF		52.00	1.61	0.96	52.00	1.25	0.67	BT
X6QVAF		52.15	1.76	1.05	51.85	1.10	0.59	HH
XPE98D		51.50	1.11	0.66	52.00	1.25	0.67	BT
YQYLZF		50.50	0.11	0.06	51.00	0.25	0.13	BT
YWBA2C		48.65	-1.74	-1.04	48.35	-2.40	-1.29	BT
YZAMLG		51.00	0.61	0.36	49.50	-1.25	-0.67	BT
ZDBWPG		50.50	0.11	0.06	50.00	-0.75	-0.40	BT
ZHQ6DF	*	54.85	4.46	2.66	53.40	2.65	1.41	BT
ZRVCTF		50.40	0.01	0.00	50.65	-0.10	-0.06	BT
ZVVMNF		50.50	0.11	0.06	50.00	-0.75	-0.40	BT

Summary Statistics

	Sample A41-A42	Sample A43-A44
Grand Means	50.394 Type A	50.754 Type A
Stnd Dev Btwn Labs	1.677 Type A	1.870 Type A

Statistics based on 58 of 63 reporting participants

Samples A41-A42: Polyisoprene Compound & A43-A44: Polyisoprene Compound

Comments on Assigned Data Flags for Test #620

JACPEU (X) - Data for sample group A43-A44 are low.

NMVD6T (M) - Data not reported for Sample A43.

RK2EPL (X) - Data for sample group A41-A42 are high.

T7JXCN (X) - Data for all samples are high. Possible Systematic Error.

UDCPXM (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample group A43-A44.

Key to Instrument Codes Reported by Participants

BT Benchtop

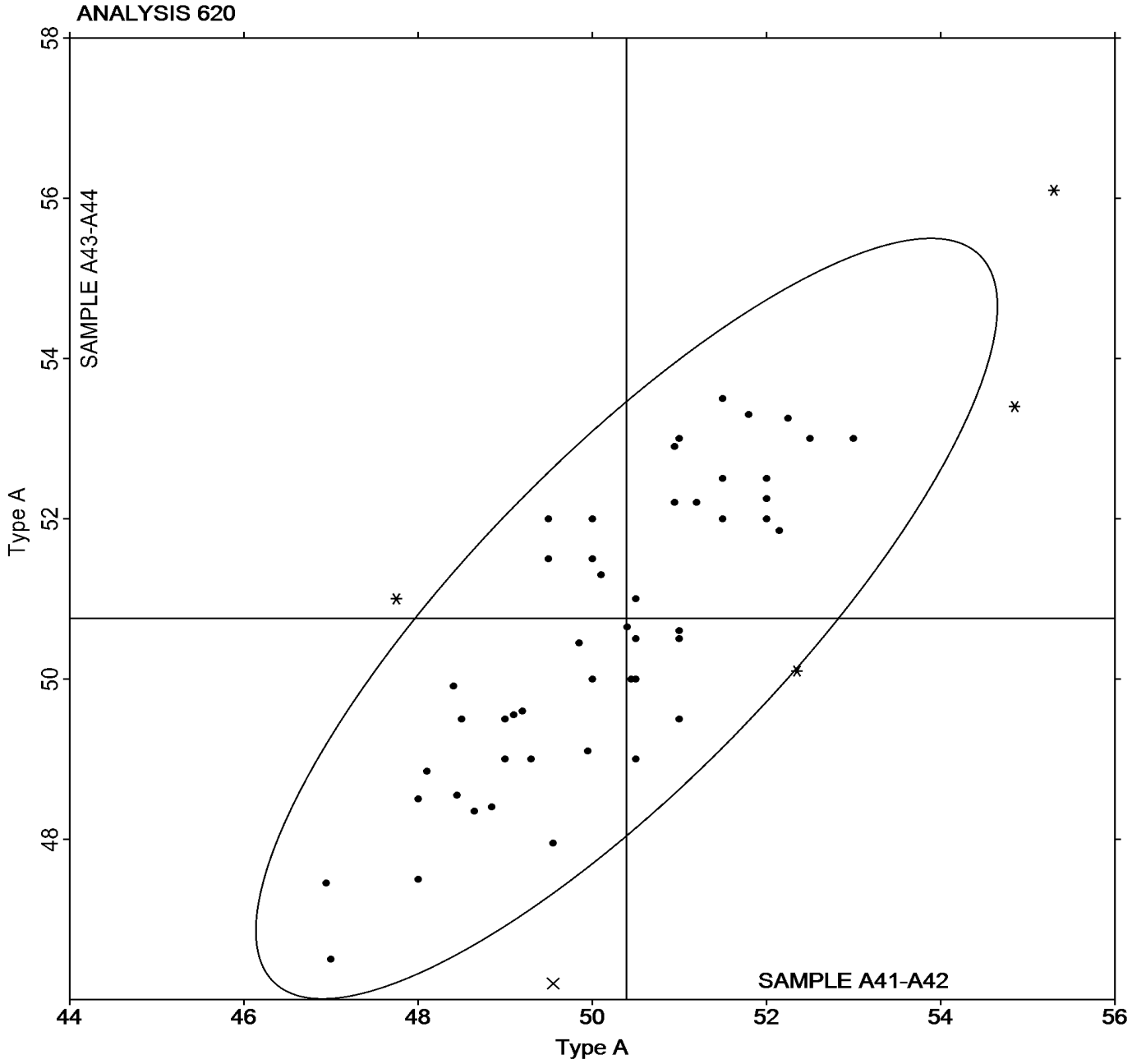
HH Handheld

Results by Reading Time (as reported by laboratory)

	Sample A41-A42 *Polyisoprene Compound*			Sample A43-A44 *Polyisoprene Compound*				
Reading Time	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	Labs Incl / Rpt	
Readings taken within 0 - 5 seconds	50.58	1.21	0.18	51.02	1.63	0.27	38	43
Readings taken at 5 seconds	48.23	0.72	-2.17	48.36	1.20	-2.39	6	6
Readings taken after 5+ seconds	48.42	1.28	-1.98	48.65	1.07	-2.10	3	6
Maximum hardness indicator used	50.86	0.68	0.46	51.17	0.80	0.42	7	8

Grand Mean Sample **A41-A42** = 50.394 Type A

Grand Mean Sample **A43-A44** = 50.754 Type A



WebCode	Data Flag	Sample A41-A42 Lab Mean	Diff from Grand Mean	CPV	Sample A43-A44 Lab Mean	Diff from Grand Mean	CPV
3HY8TC	X	1.179	0.043	13.89	1.215	0.079	24.69
3T2FJA		1.136	0.000	0.09	1.137	0.001	0.36
3YP4DF		1.132	-0.004	-1.19	1.134	-0.002	-0.73
42A8LC		1.139	0.003	1.06	1.139	0.003	0.99
4RHYT9		1.133	-0.002	-0.79	1.132	-0.004	-1.23
6ZCGT3		1.138	0.002	0.73	1.139	0.003	0.83
92TUYB		1.134	-0.001	-0.42	1.133	-0.003	-0.85
A4BLA4		1.137	0.002	0.51	1.139	0.003	1.06
AHEWU6		1.138	0.003	0.90	1.135	-0.001	-0.26
BF3G24		1.134	-0.002	-0.55	1.136	0.000	-0.09
CBM9D4		1.137	0.002	0.67	1.137	0.001	0.44
D6X9AW		1.141	0.006	1.86	1.141	0.005	1.45
DDPG3Z		1.132	-0.004	-1.16	1.132	-0.004	-1.18
E4HCHW		1.130	-0.005	-1.67	1.130	-0.006	-1.82
EMERQZ		1.135	0.000	-0.07	1.137	0.001	0.21
F6AKBY		1.132	-0.004	-1.19	1.131	-0.005	-1.66
FHGDUX	X	1.119	-0.016	-5.08	1.124	-0.012	-3.66
FK3CWZ		1.132	-0.003	-1.03	1.134	-0.002	-0.73
GE9UVT		1.140	0.005	1.50	1.142	0.006	2.00
JACPEU	X	8.337	7.202	2,310.26	8.244	7.108	2,217.04
JG68KP		1.135	0.000	0.08	1.135	-0.001	-0.28
JUU7CR		1.135	0.000	0.03	1.135	-0.001	-0.18
KDPYWQ		1.136	0.001	0.25	1.136	0.000	0.05
KGQXFV		1.135	0.000	-0.07	1.136	0.000	0.05
L3HGYT		1.131	-0.004	-1.30	1.133	-0.003	-0.90
M8AYYP	X	1.230	0.095	30.47	1.279	0.144	44.78
N7V2WR		1.136	0.001	0.21	1.137	0.001	0.24
NMVD6T		1.137	0.001	0.41	1.136	0.000	-0.11
NRBLTT		1.140	0.004	1.38	1.140	0.004	1.30
NYCVZL		1.138	0.002	0.80	1.138	0.002	0.71
NYU38N		1.138	0.003	0.90	1.137	0.001	0.36
PQXBFL	X	1.129	-0.007	-2.15	1.136	0.000	-0.11
RK2EPL		1.133	-0.002	-0.68	1.133	-0.003	-0.90
TNVVFK		1.136	0.000	0.09	1.139	0.003	0.99
TRXH9N		1.137	0.001	0.41	1.135	-0.001	-0.26
URYQYN		1.130	-0.005	-1.67	1.130	-0.006	-1.82
V9G98E		1.138	0.002	0.73	1.137	0.001	0.36
VQVRTK		1.134	-0.002	-0.55	1.138	0.002	0.52

WebCode	Data Flag	Sample A41-A42 Lab Mean	Diff from Grand Mean	CPV	Sample A43-A44 Lab Mean	Diff from Grand Mean	CPV
X6QVAF		1.131	-0.004	-1.30	1.130	-0.006	-1.91
XPE98D		1.135	-0.001	-0.23	1.138	0.002	0.67
YQYLZF		1.132	-0.004	-1.19	1.134	-0.002	-0.57
YWBA2C		1.134	-0.001	-0.47	1.135	-0.001	-0.29
ZDBWPG		1.140	0.005	1.59	1.141	0.005	1.69
ZHQ6DF		1.142	0.007	2.18	1.141	0.005	1.61
ZRVCTF		1.133	-0.003	-0.87	1.136	0.000	-0.11

Summary Statistics

Grand Means	1.1352 g/cm^3 (Mg/m^3)	1.1358 g/cm^3 (Mg/m^3)
Stnd Dev Btwn Labs	0.0031 g/cm^3 (Mg/m^3)	0.0032 g/cm^3 (Mg/m^3)

Statistics based on 40 of 45 reporting participants

Samples A41-A42: Polyisoprene Compound & A43-A44: Polyisoprene Compound

Comments on Assigned Data Flags for Test #621

3HY8TC (X) - Extreme Data.

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

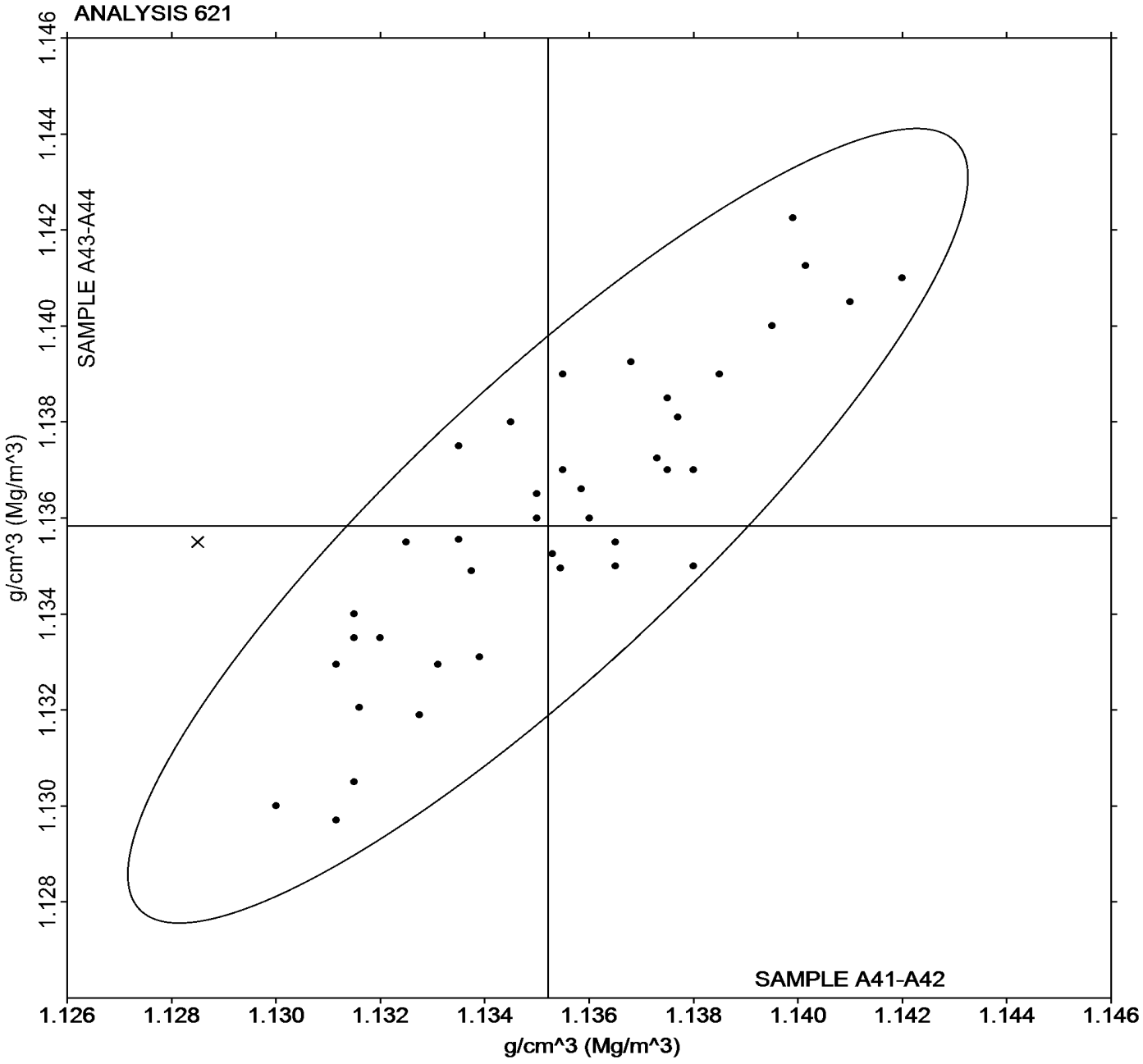
JACPEU (X) - Extreme Data.

M8AYYP (X) - Extreme Data.

PQXBFL (X) - Inconsistent in testing between samples.

Grand Mean Sample **A41-A42** = 1.1352 g/cm^3 (Mg/m^3)

Grand Mean Sample **A43-A44** = 1.1358 g/cm^3 (Mg/m^3)



Rubber Interlaboratory Testing Program

Report #219

Analysis 625

1st Qtr 2024

Hardness (Shore D/Type D)

WebCode	Data Flag	Sample HA41-HA42 Lab Mean	Diff from Grand Mean	CPV	Sample HA43-HA44 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2Y8YVG		52.00	-0.35	-0.10	67.50	0.84	0.34	BT
3BKA8D		58.00	5.65	1.57	70.00	3.34	1.35	HH
3T2FJA		51.00	-1.35	-0.38	66.00	-0.66	-0.26	BT
82CD73		53.30	0.95	0.26	69.15	2.49	1.00	HH
83TKE7		51.00	-1.35	-0.38	66.50	-0.16	-0.06	BT
AEG7W7		57.40	5.05	1.40	69.30	2.64	1.06	HH
AHEWU6		51.50	-0.85	-0.24	66.50	-0.16	-0.06	HH
GVCGCU		52.60	0.25	0.07	66.55	-0.11	-0.04	BT
HE94FX		49.25	-3.10	-0.86	65.20	-1.46	-0.59	BT
J9CYZY	*	41.75	-10.60	-2.95	58.25	-8.41	-3.38	BT
JQWGET		58.00	5.65	1.57	68.90	2.24	0.90	BT
JUU7CR		49.10	-3.26	-0.91	64.33	-2.33	-0.94	XX
JWL6QQ		55.40	3.05	0.85	66.60	-0.06	-0.02	BT
M8AYYP		54.25	1.90	0.53	69.75	3.09	1.24	HH
MRV39V		51.50	-0.85	-0.24	65.95	-0.71	-0.28	BT
NBQR6P		55.00	2.65	0.74	68.00	1.34	0.54	HH
NMVD6T		50.05	-2.30	-0.64	65.25	-1.41	-0.56	BT
PHNUTL		56.50	4.15	1.15	69.50	2.84	1.14	BT
PQXBFL		52.65	0.30	0.08	66.90	0.24	0.10	BT
TFL72L		49.25	-3.10	-0.86	63.95	-2.71	-1.09	BT
UDCPXM		48.10	-4.25	-1.18	64.00	-2.66	-1.07	BT
W4Z2JF		54.00	1.65	0.46	68.00	1.34	0.54	BT
XHBBDF		50.20	-2.15	-0.60	65.85	-0.81	-0.32	BT
XPE98D		54.50	2.15	0.60	67.00	0.34	0.14	BT
ZHQ6DF		52.55	0.20	0.05	67.45	0.79	0.32	BT

Summary Statistics

	Sample HA41-HA42	Sample HA43-HA44
Grand Means	52.354 Type D	66.655 Type D
Stnd Dev Btwn Labs	3.596 Type D	2.487 Type D

Statistics based on 25 of 25 reporting participants

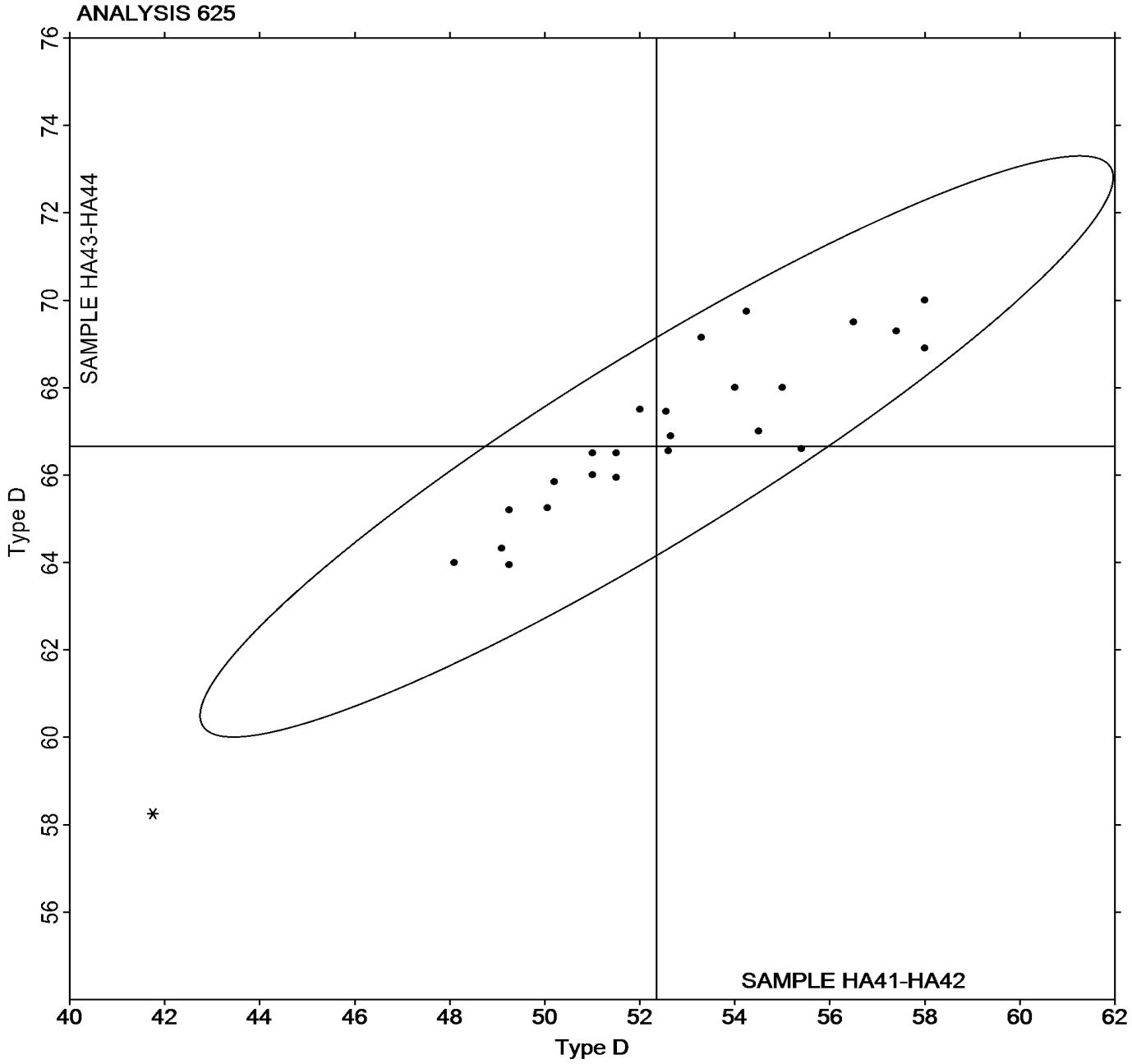
Samples HA41-HA42: Hardness Disc & HA43-HA44: Hardness Disc

Key to Instrument Codes Reported by Participants

BT	Benchtop	HH	Handheld
XX	Specify Benchtop or Handheld Instrument		

Grand Mean Sample **HA41-HA42** = 52.354 Type D

Grand Mean Sample **HA43-HA44** = 66.655 Type D



Rubber Interlaboratory Testing Program

Analysis 630

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

WebCode	Data Flag	Sample A41-A42 Lab Mean	Sample A41-A42 Diff from Grand Mean	Sample A41-A42 CPV	Sample J41-J42 Lab Mean	Sample J41-J42 Diff from Grand Mean	Sample J41-J42 CPV
4RHYT9		3,224.5	-75.6	-0.51	2,805.0	18.9	0.02
6MLTCA		3,215.1	-85.1	-0.58	2,791.0	4.8	0.01
6ZCGT3		3,319.2	19.1	0.13	3,216.2	430.1	0.51
92TUYB		3,393.9	93.8	0.64	3,240.2	454.0	0.54
A4BLA4		3,490.4	190.2	1.29	3,275.7	489.6	0.58
AHEWU6		3,157.5	-142.6	-0.97	3,006.2	220.0	0.26
FHGDUX	*	3,623.8	323.7	2.19	23.0	-2,763.1	-3.30
GE9UVT		3,430.5	130.4	0.88	3,361.0	574.9	0.69
JG68KP		3,183.9	-116.2	-0.79	3,051.4	265.3	0.32
TNVVFK		3,205.0	-95.1	-0.64	2,825.0	38.9	0.05
V9G98E		3,195.0	-105.1	-0.71	2,965.0	178.9	0.21
XU4WJB	M	No data reported for this sample			2,552.4	-233.8	-0.28
YWBA2C		3,203.0	-97.2	-0.66	2,333.4	-452.7	-0.54
YZAMLG		3,420.0	119.9	0.81	2,994.5	208.4	0.25
ZHQ6DF		3,140.1	-160.0	-1.08	3,118.3	332.2	0.40

Summary Statistics

	Sample A41-A42	Sample J41-J42
Grand Means	3,300.12 psi	2,786.14 psi
Stnd Dev Btwn Labs	147.66 psi	837.00 psi

Statistics based on 14 of 15 reporting participants

Summary Statistics in SI Units

	Sample A41-A42	Sample J41-J42
Grand Means	22.753 MPa	19.210 MPa
Stnd Dev Btwn Labs	1.018 MPa	5.770 MPa

Statistics based on 14 of 15 reporting participants

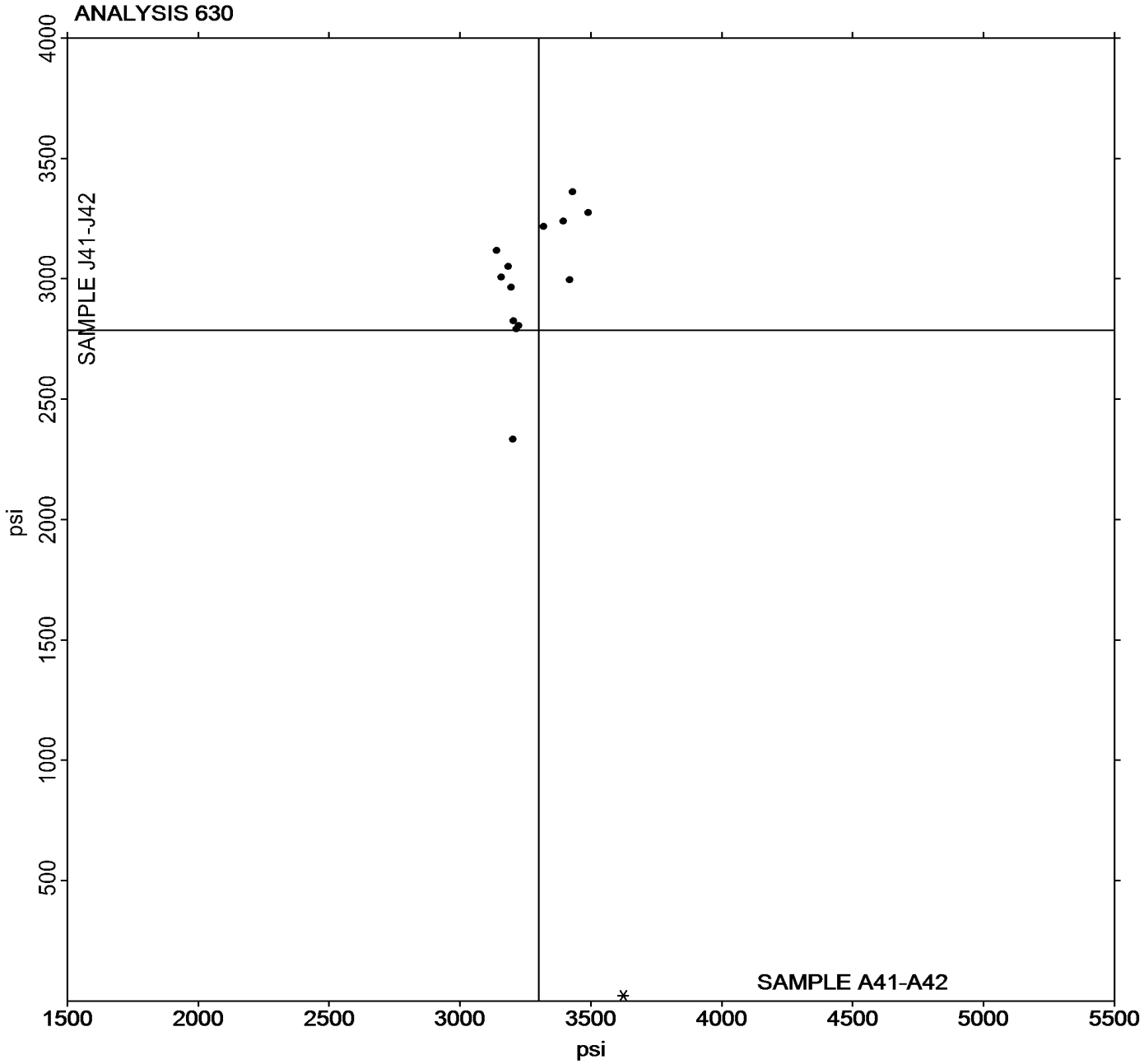
Samples A41-A42: Polyisoprene Compound & J41-J42: Polyisoprene Compound

Comments on Assigned Data Flags for Test #630

XU4WJB (M) - Participant did not submit data for sample group A41-A42.

Grand Mean Sample **A41-A42** = 3,300.12 psi

Grand Mean Sample **J41-J42** = 2,786.14 psi



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

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

WebCode	Data Flag	Sample A41-A42 Lab Mean	Sample A41-A42 Diff from Grand Mean	Sample A41-A42 CPV	Sample J41-J42 Lab Mean	Sample J41-J42 Diff from Grand Mean	Sample J41-J42 CPV
4RHYT9		630.5	2.3	0.04	554.5	-5.3	-0.16
6MLTCA		599.6	-28.6	-0.45	510.6	-49.3	-1.44
6ZCGT3		593.0	-35.2	-0.55	562.5	2.7	0.08
92TUYB		599.2	-29.0	-0.45	557.4	-2.4	-0.07
A4BLA4		661.0	32.8	0.51	583.0	23.2	0.68
AHEWU6		571.4	-56.8	-0.89	531.6	-28.2	-0.83
FHGDUX		586.5	-41.7	-0.65	545.0	-14.8	-0.43
GE9UVT		636.0	7.8	0.12	608.5	48.7	1.42
JG68KP	*	835.4	207.2	3.24	612.1	52.3	1.53
TNVVFK		630.0	1.8	0.03	578.5	18.7	0.55
V9G98E		612.5	-15.7	-0.24	550.5	-9.3	-0.27
XU4WJB	M	No data reported for this sample			464.0	-95.8	-2.81
YWBA2C		597.0	-31.2	-0.49	492.0	-67.8	-1.99
YZAMLG		627.5	-0.7	-0.01	560.0	0.2	0.00
ZHQ6DF		614.7	-13.5	-0.21	591.5	31.6	0.93

Summary Statistics

	Sample A41-A42	Sample J41-J42
Grand Means	628.16 percent	559.83 percent
Stnd Dev Btwn Labs	64.06 percent	34.15 percent

Statistics based on 14 of 15 reporting participants

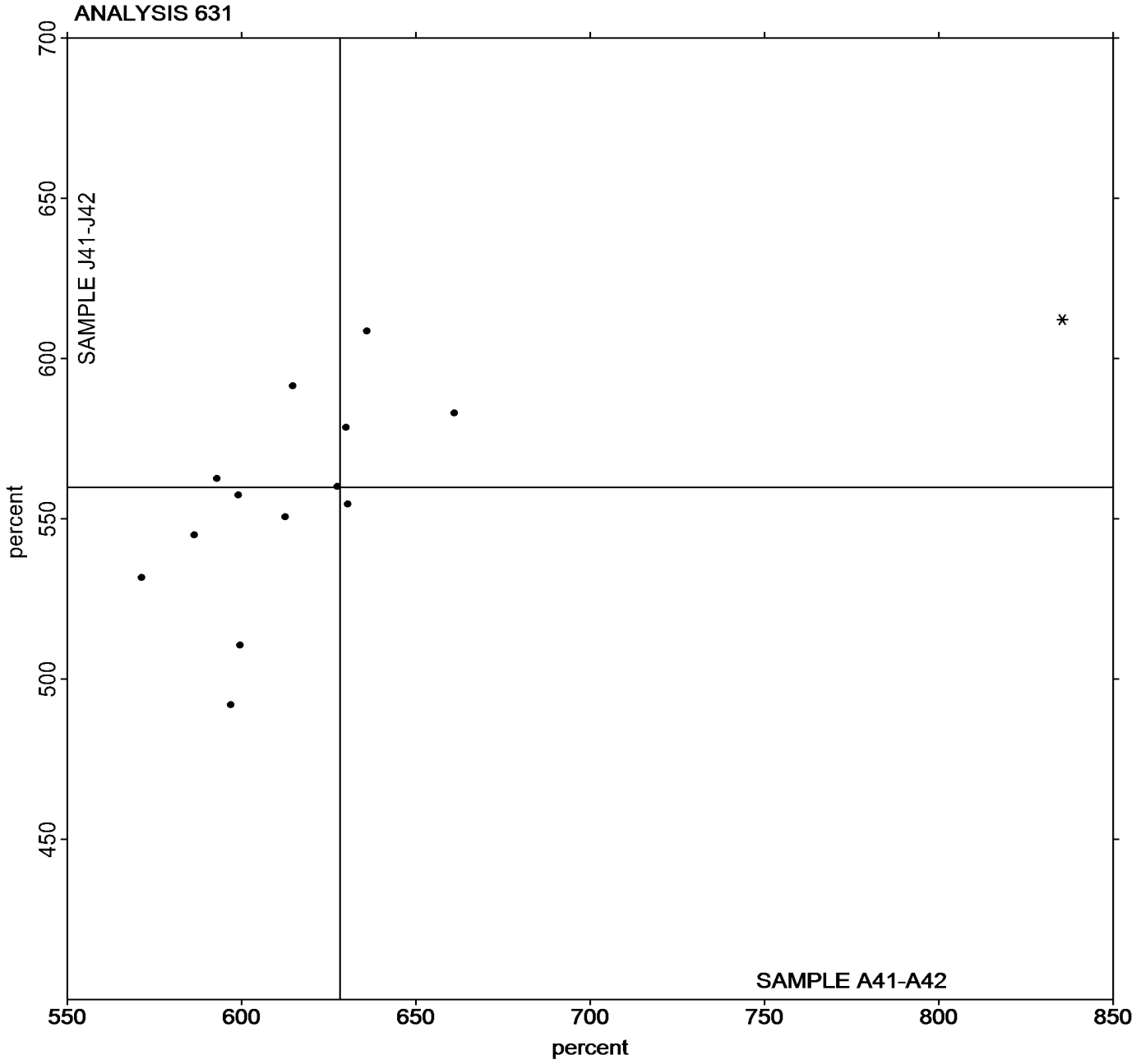
Samples A41-A42: Polyisoprene Compound & J41-J42: Polyisoprene Compound

Comments on Assigned Data Flags for Test #631

XU4WJB (M) - Participant did not submit data for sample group A41-A42.

Grand Mean Sample **A41-A42** = 628.16 percent

Grand Mean Sample **J41-J42** = 559.83 percent



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

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

WebCode	Data Flag	Sample A41-A42 Lab Mean	Sample A41-A42 Diff from Grand Mean	Sample A41-A42 CPV	Sample J41-J42 Lab Mean	Sample J41-J42 Diff from Grand Mean	Sample J41-J42 CPV
4RHYT9		970.0	-24.8	-0.24	1,065.0	46.6	0.15
6MLTCA		1,034.2	39.4	0.39	1,241.3	222.9	0.73
6ZCGT3		1,035.6	40.8	0.40	1,129.9	111.5	0.36
92TUYB		1,007.3	12.5	0.12	1,080.5	62.2	0.20
A4BLA4		962.3	-32.5	-0.32	1,180.6	162.2	0.53
AHEWU6		1,094.3	99.5	0.98	1,198.2	179.8	0.59
FHGDUX	*	1,219.1	224.3	2.20	8.5	-1,009.9	-3.31
GE9UVT		941.5	-53.3	-0.52	1,058.5	40.1	0.13
JG68KP		767.9	-226.9	-2.23	882.9	-135.5	-0.44
TNVVFK		913.0	-81.8	-0.80	948.5	-69.9	-0.23
V9G98E		927.0	-67.8	-0.67	1,163.0	144.6	0.47
XU4WJB	M	No data reported for this sample			1,884.7	866.3	2.84
YWBA2C		1,051.2	56.4	0.55	1,122.6	104.2	0.34
YZAMLG		986.5	-8.3	-0.08	1,077.0	58.6	0.19
ZHQ6DF		1,017.4	22.7	0.22	1,100.8	82.5	0.27

Summary Statistics

	Sample A41-A42	Sample J41-J42
Grand Means	994.79 psi	1,018.38 psi
Stnd Dev Btwn Labs	101.76 psi	305.54 psi

Statistics based on 14 of 15 reporting participants

Summary Statistics in SI Units

	Sample A41-A42	Sample J41-J42
Grand Means	6.8588 MPa	7.0200 MPa
Stnd Dev Btwn Labs	0.7016 MPa	2.1100 MPa

Statistics based on 14 of 15 reporting participants

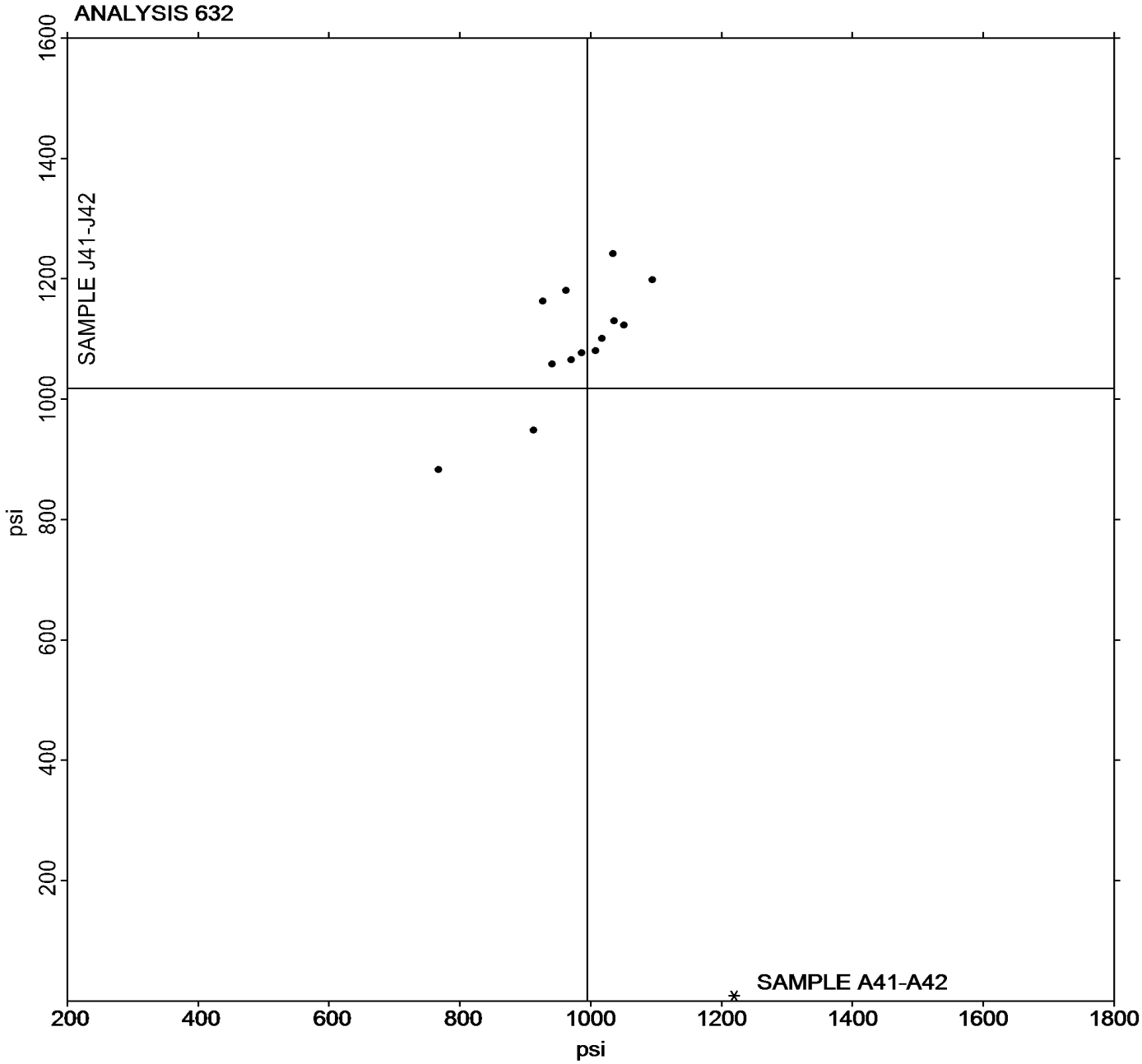
Samples A41-A42: Polyisoprene Compound & J41-J42: Polyisoprene Compound

Comments on Assigned Data Flags for Test #632

XU4WJB (M) - Participant did not submit data for sample group A41-A42.

Grand Mean Sample **A41-A42** = 994.79 psi

Grand Mean Sample **J41-J42** = 1,018.38 psi



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

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

WebCode	Data Flag	Sample A41-A42 Lab Mean	Sample A41-A42 Diff from Grand Mean	Sample A41-A42 CPV	Sample J41-J42 Lab Mean	Sample J41-J42 Diff from Grand Mean	Sample J41-J42 CPV
4RHYT9		212.0	-9.3	-0.41	236.0	10.9	0.16
6MLTCA		232.8	11.5	0.51	281.1	56.0	0.84
6ZCGT3		223.4	2.1	0.09	245.1	20.0	0.30
92TUYB		221.9	0.6	0.03	235.7	10.6	0.16
A4BLA4		208.7	-12.6	-0.56	255.8	30.7	0.46
AHEWU6		214.5	-6.8	-0.30	235.3	10.2	0.15
FHGDUX	*	282.1	60.8	2.72	1.9	-223.2	-3.36
GE9UVT		200.0	-21.3	-0.95	237.5	12.4	0.19
JG68KP		185.3	-36.0	-1.61	212.5	-12.6	-0.19
TNVVFK		211.5	-9.8	-0.44	221.0	-4.1	-0.06
V9G98E		211.0	-10.3	-0.46	261.5	36.4	0.55
XU4WJB	M	No data reported for this sample			312.5	87.4	1.32
YWBA2C		236.7	15.4	0.69	237.4	12.3	0.19
YZAMLG		222.5	1.2	0.05	239.0	13.9	0.21
ZHQ6DF		235.7	14.4	0.64	251.6	26.5	0.40

Summary Statistics

	Sample A41-A42	Sample J41-J42
Grand Means	221.28 psi	225.10 psi
Stnd Dev Btwn Labs	22.40 psi	66.41 psi

Statistics based on 14 of 15 reporting participants

Summary Statistics in SI Units

	Sample A41-A42	Sample J41-J42
Grand Means	1.5257 MPa	1.5500 MPa
Stnd Dev Btwn Labs	0.1544 MPa	0.4600 MPa

Statistics based on 14 of 15 reporting participants

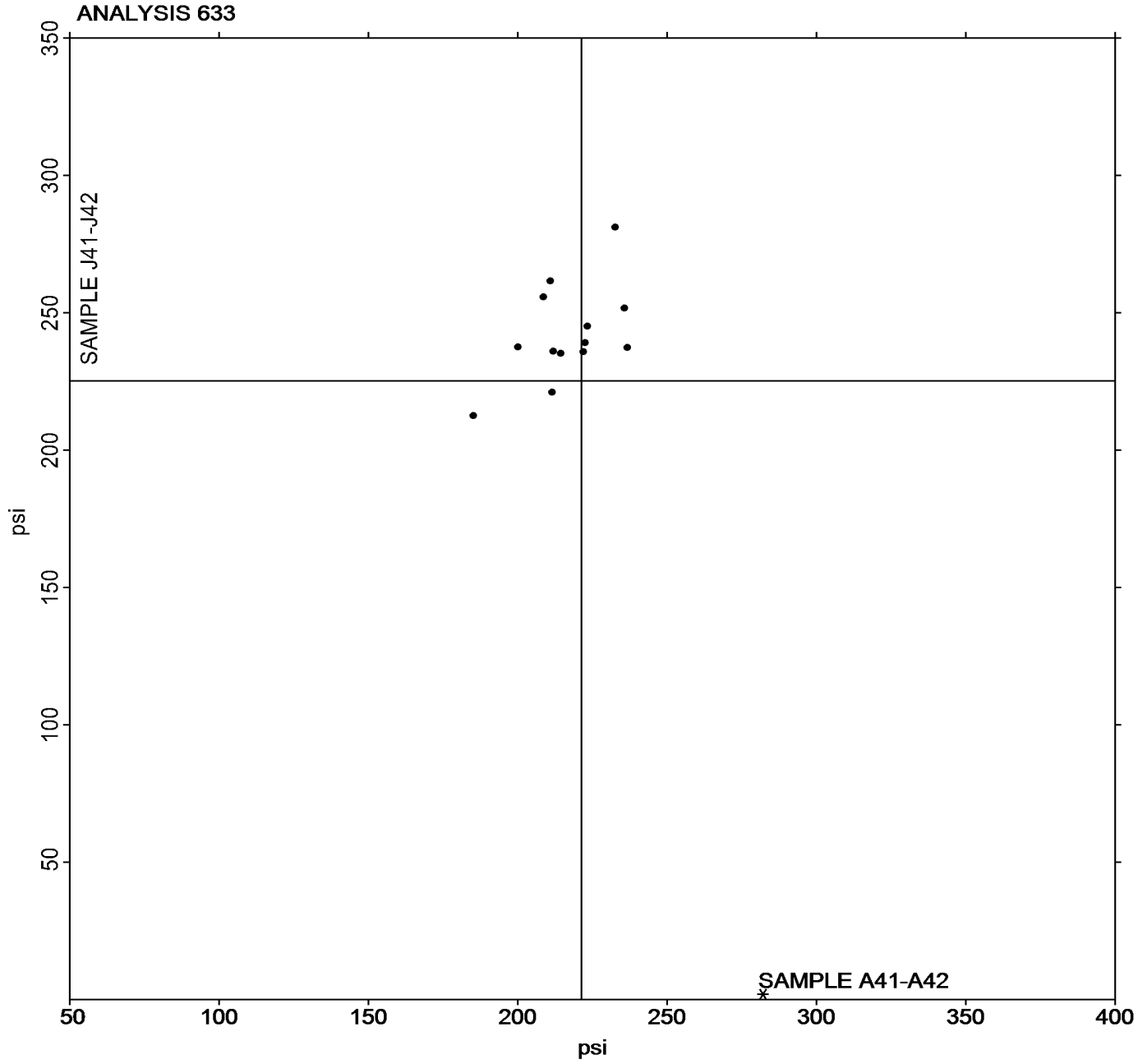
Samples A41-A42: Polyisoprene Compound & J41-J42: Polyisoprene Compound

Comments on Assigned Data Flags for Test #633

XU4WJB (M) - Participant did not submit data for sample group A41-A42.

Grand Mean Sample **A41-A42** = 221.28 psi

Grand Mean Sample **J41-J42** = 225.10 psi



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

WebCode	Data Flag	Sample N41 Lab Mean	Sample N41 Diff from Grand Mean	Sample N41 CPV	Sample N42 Lab Mean	Sample N42 Diff from Grand Mean	Sample N42 CPV
3T2FJA		42.00	-3.94	-0.52	47.00	-0.12	-0.02
3YP4DF		47.67	1.73	0.23	45.00	-2.12	-0.27
42A8LC		46.60	0.66	0.09	50.67	3.54	0.44
4RHYT9		38.87	-7.07	-0.93	38.34	-8.79	-1.10
6MLTCA		58.67	12.73	1.67	59.90	12.78	1.60
92TUYB		47.36	1.42	0.19	42.02	-5.11	-0.64
AHEWU6		54.68	8.75	1.15	56.08	8.96	1.12
AQQ774		50.19	4.25	0.56	42.69	-4.43	-0.56
BAC8Q6		36.09	-9.85	-1.29	35.93	-11.19	-1.40
BF3G24		32.33	-13.60	-1.78	33.67	-13.46	-1.69
CBM9D4		39.33	-6.60	-0.86	40.67	-6.46	-0.81
D6X9AW		53.00	7.06	0.93	52.00	4.88	0.61
DDPG3Z		47.67	1.73	0.23	42.33	-4.79	-0.60
FHGDUX		55.83	9.90	1.30	62.73	15.61	1.96
GPRCNZ		50.09	4.16	0.54	58.94	11.81	1.48
JACPEU		59.67	13.73	1.80	59.00	11.88	1.49
JUU7CR		47.80	1.86	0.24	52.07	4.94	0.62
MRV39V		48.70	2.76	0.36	60.07	12.94	1.62
N7V2WR		37.33	-8.60	-1.13	40.33	-6.79	-0.85
NYCVZL		46.53	0.60	0.08	46.00	-1.12	-0.14
RF8KRK	*	30.33	-15.60	-2.04	42.00	-5.12	-0.64
URYQYN		37.67	-8.27	-1.08	41.33	-5.79	-0.73
V9G98E		42.00	-3.94	-0.52	42.33	-4.79	-0.60
VQVRTK		48.42	2.48	0.32	46.80	-0.33	-0.04
X6QVAF		43.52	-2.41	-0.32	43.38	-3.74	-0.47
XJC2TB		43.33	-2.60	-0.34	43.00	-4.12	-0.52
YWBA2C		54.57	8.63	1.13	48.07	0.94	0.12

Summary Statistics

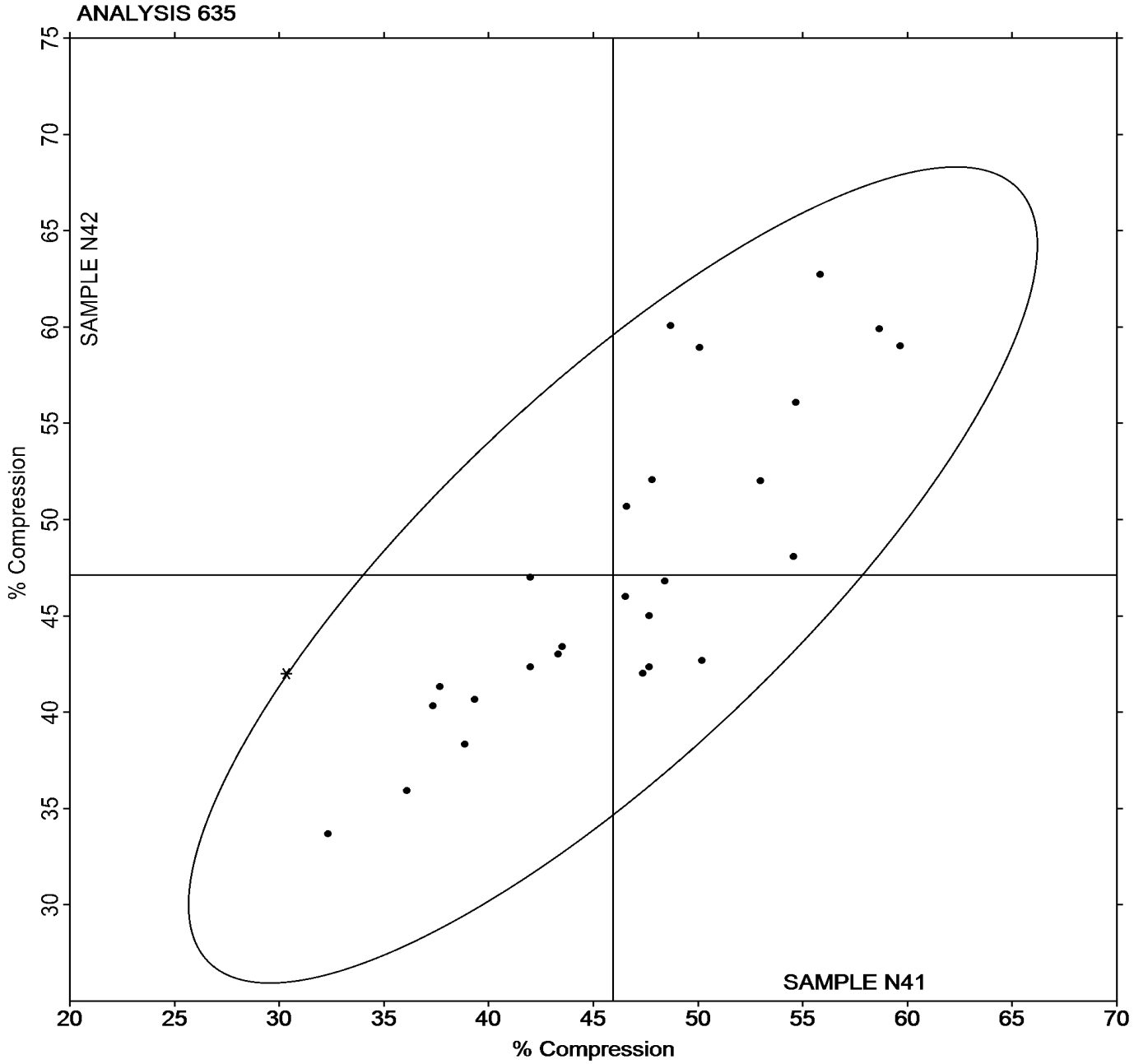
	Sample N41	Sample N42
Grand Means	45.935 % Compression	47.124 % Compression
Stnd Dev Btwn Labs	7.636 % Compression	7.982 % Compression

Statistics based on 27 of 27 reporting participants

Samples N41: EPDM Compound & N42: EPDM Compound

Grand Mean Sample **N41** = 45.935 % Compression

Grand Mean Sample **N42** = 47.124 % Compression



WebCode	Data Flag	Sample RA41 Lab Mean	Sample RA41 Diff from Grand Mean	Sample RA41 CPV	Sample RA42 Lab Mean	Sample RA42 Diff from Grand Mean	Sample RA42 CPV
2NAVU9		2,540.4	-42.5	-0.28	2,503.6	-48.2	-0.31
3YP4DF		2,596.0	13.1	0.09	2,551.6	-0.2	0.00
4RHYT9		2,447.4	-135.5	-0.89	2,451.6	-100.2	-0.64
92TUYB		2,506.6	-76.3	-0.50	2,481.0	-70.8	-0.45
CBM9D4		2,671.2	88.3	0.58	2,615.4	63.6	0.41
EMERQZ		2,599.0	16.1	0.11	2,512.6	-39.2	-0.25
FK3CWZ		2,528.4	-54.5	-0.36	2,447.6	-104.2	-0.67
JACPEU		2,348.2	-234.7	-1.54	2,324.8	-227.0	-1.45
KMG9QU		2,396.0	-186.8	-1.23	2,448.3	-103.5	-0.66
N7V2WR		2,649.4	66.5	0.44	2,691.2	139.4	0.89
NYCVZL		2,680.2	97.3	0.64	2,705.4	153.6	0.98
RF8KRK		2,979.8	396.9	2.61	2,963.2	411.4	2.63
XU4WJB		2,627.1	44.2	0.29	2,452.9	-98.9	-0.63
YWBA2C		2,590.3	7.4	0.05	2,576.0	24.2	0.15

Summary Statistics

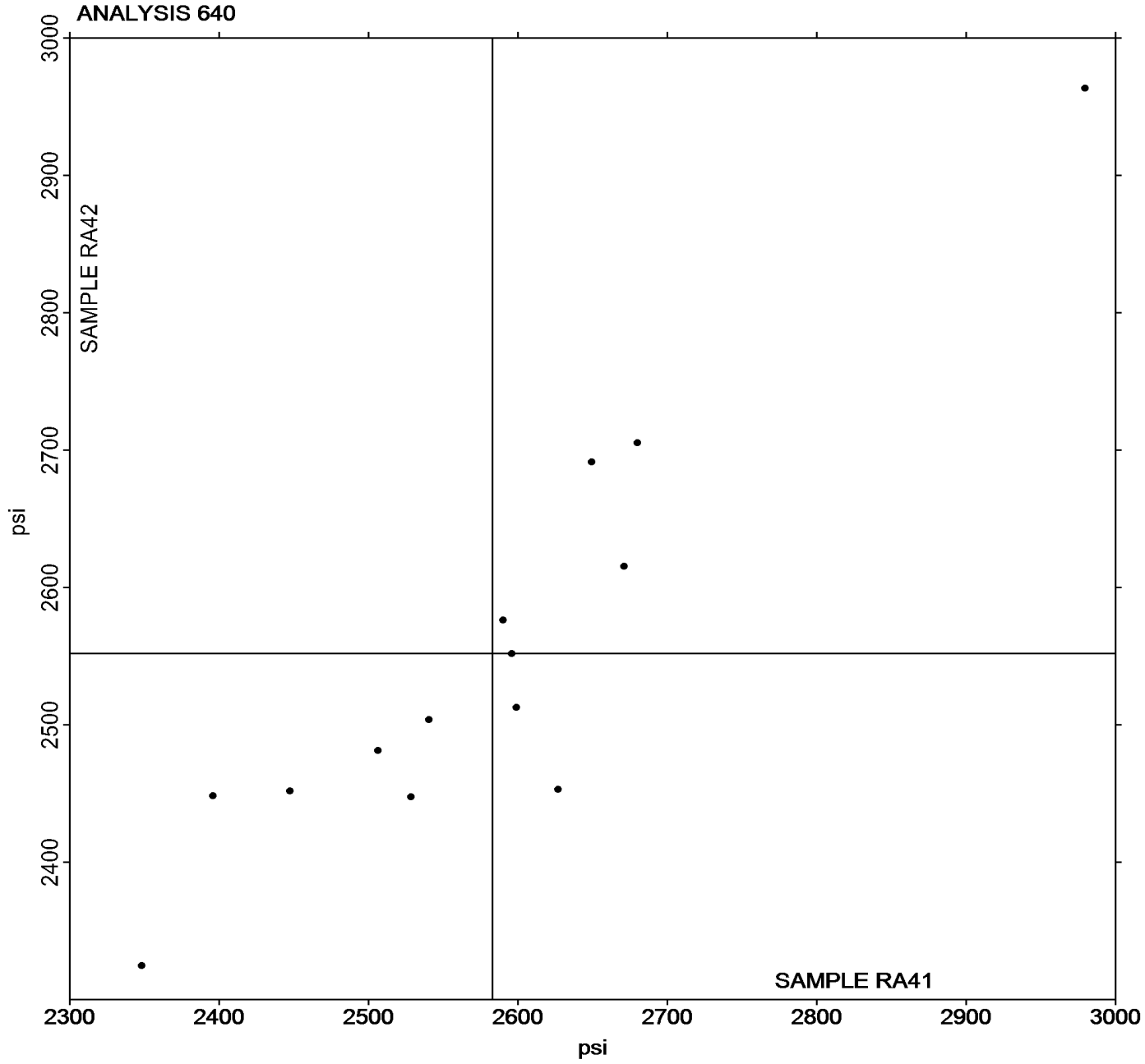
	Sample RA41	Sample RA42
Grand Means	2,582.86 psi	2,551.80 psi
Stnd Dev Btwn Labs	152.07 psi	156.57 psi

Statistics based on 14 of 14 reporting participants

Samples RA41: Nitrile O-Ring & RA42: Nitrile O-Ring

Grand Mean Sample **RA41** = 2,582.86 psi

Grand Mean Sample **RA42** = 2,551.80 psi



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

WebCode	Data Flag	Sample RA41 Lab Mean	Sample RA41 Diff from Grand Mean	Sample RA41 CPV	Sample RA42 Lab Mean	Sample RA42 Diff from Grand Mean	Sample RA42 CPV
2NAVU9		430.6	28.1	0.77	428.2	26.4	0.58
3YP4DF		426.0	23.5	0.64	416.6	14.8	0.32
4RHYT9		400.6	-1.9	-0.05	384.2	-17.6	-0.39
92TUYB		429.8	27.3	0.75	429.8	28.0	0.61
CBM9D4		377.0	-25.5	-0.70	371.2	-30.6	-0.67
EMERQZ		429.4	26.9	0.74	410.4	8.6	0.19
FK3CWZ		410.2	7.7	0.21	395.8	-6.0	-0.13
JACPEU		377.6	-24.9	-0.68	369.0	-32.8	-0.72
KMG9QU		360.0	-42.5	-1.17	367.0	-34.8	-0.76
N7V2WR		374.6	-27.9	-0.77	382.6	-19.2	-0.42
NYCVZL		424.4	21.9	0.60	430.2	28.4	0.62
RF8KRK		316.6	-85.9	-2.36	306.8	-95.0	-2.08
XU4WJB	*	440.2	37.7	1.03	505.8	104.0	2.28
YWBA2C		438.0	35.5	0.97	427.6	25.8	0.57

Summary Statistics

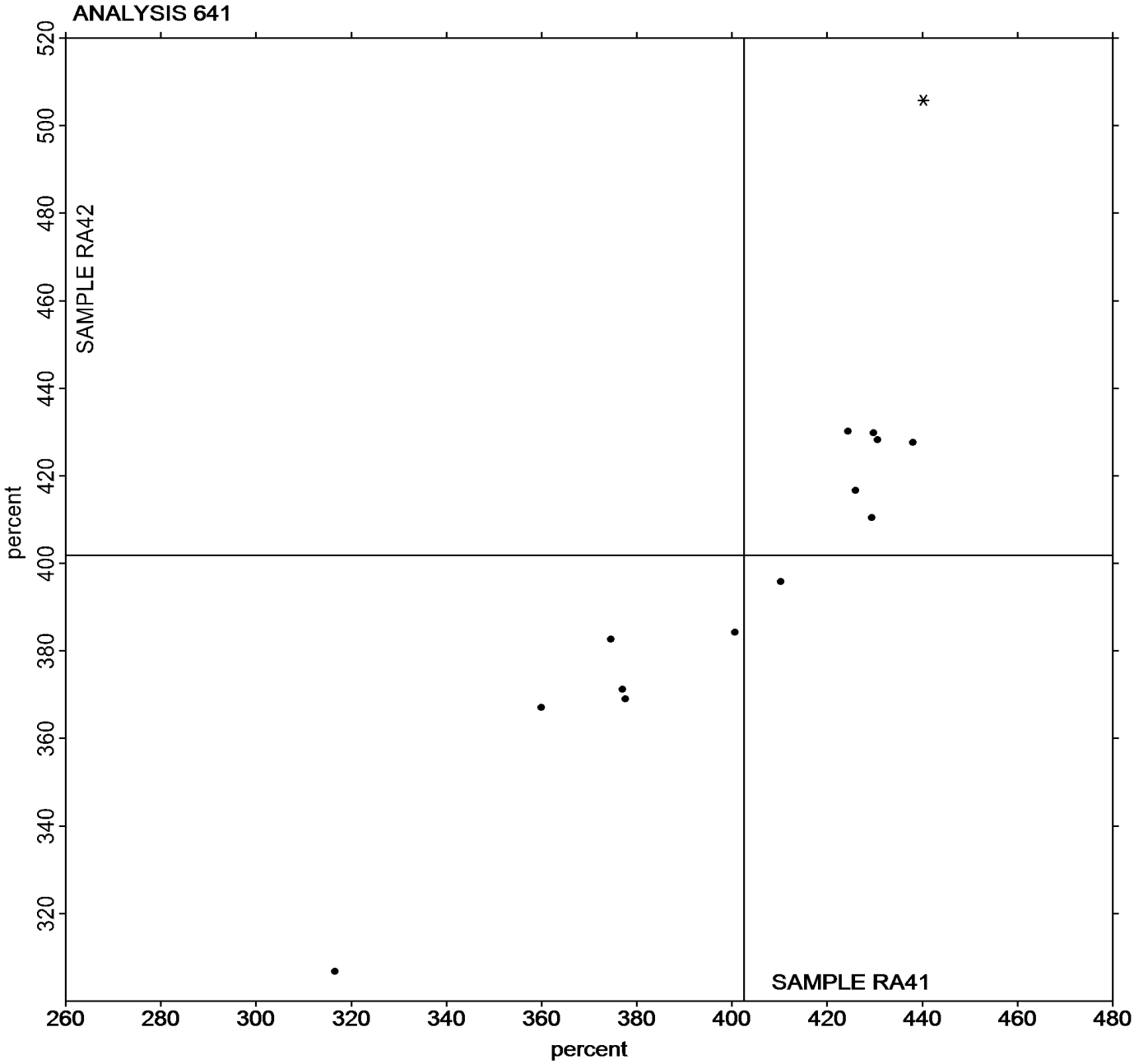
	Sample RA41	Sample RA42
Grand Means	402.50 percent	401.79 percent
Stnd Dev Btwn Labs	36.45 percent	45.59 percent

Statistics based on 14 of 14 reporting participants

Samples RA41: Nitrile O-Ring & RA42: Nitrile O-Ring

Grand Mean Sample **RA41** = 402.50 percent

Grand Mean Sample **RA42** = 401.79 percent



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

O-Ring Stress at 100% Elongation (psi)

WebCode	Data Flag	Sample RA41 Lab Mean	Sample RA41 Diff from Grand Mean	Sample RA41 CPV	Sample RA42 Lab Mean	Sample RA42 Diff from Grand Mean	Sample RA42 CPV
2NAVU9		467.8	18.3	0.29	464.8	24.6	0.29
3YP4DF		444.2	-5.3	-0.09	436.8	-3.4	-0.04
4RHYT9		531.2	81.7	1.31	533.2	93.0	1.09
92TUYB		353.6	-95.9	-1.54	343.5	-96.7	-1.14
CBM9D4		546.4	96.9	1.56	527.0	86.8	1.02
EMERQZ		450.4	0.9	0.01	438.6	-1.6	-0.02
FK3CWZ		451.0	1.5	0.02	438.6	-1.6	-0.02
JACPEU		439.0	-10.5	-0.17	496.2	56.0	0.66
KMG9QU		423.5	-26.0	-0.42	426.4	-13.8	-0.16
N7V2WR		536.0	86.5	1.39	545.0	104.8	1.23
NYCVZL		459.0	9.5	0.15	461.8	21.6	0.25
XU4WJB	*	370.1	-79.4	-1.28	235.5	-204.7	-2.40
YWBA2C		371.4	-78.1	-1.26	375.2	-65.0	-0.76

Summary Statistics

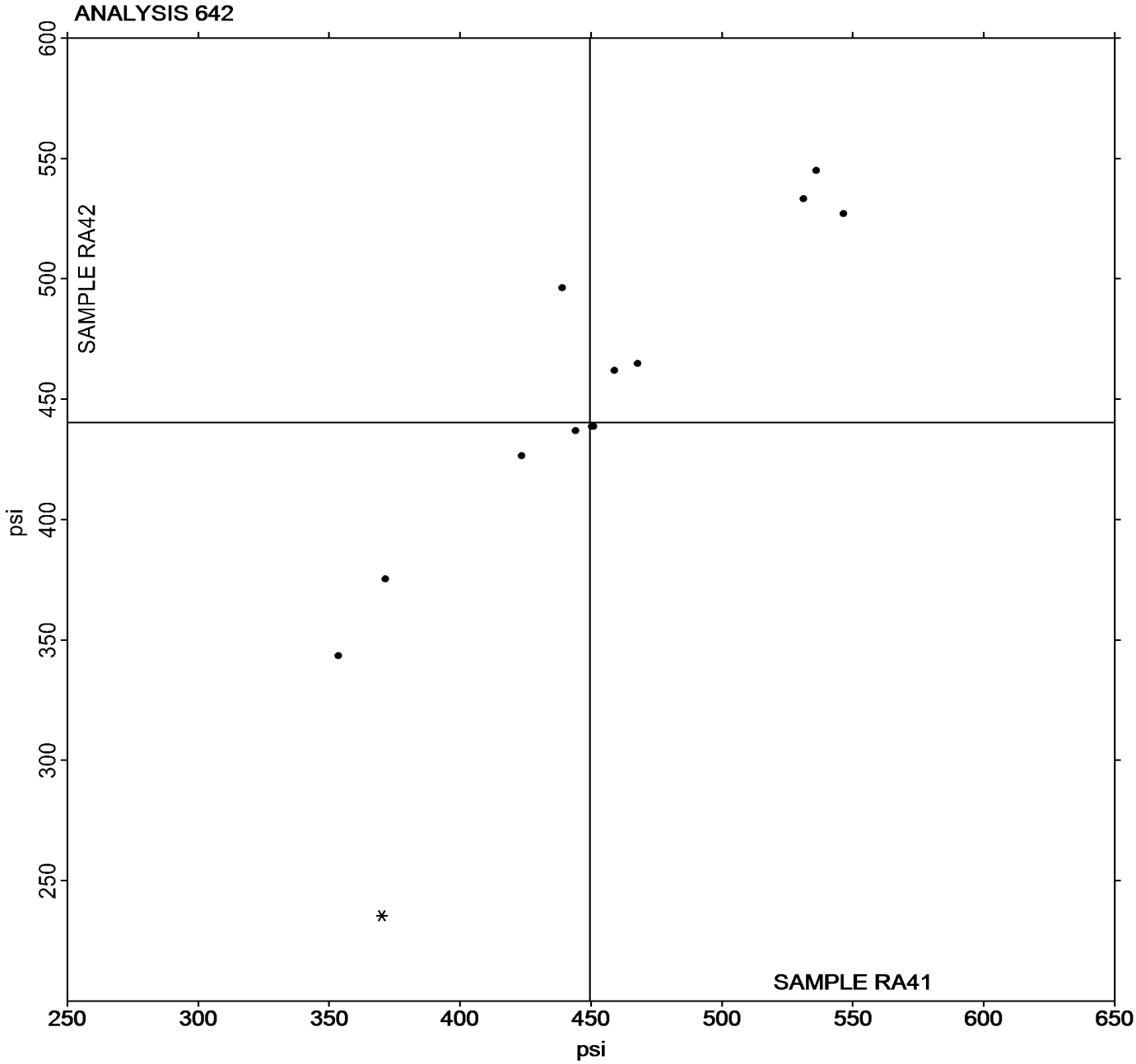
	Sample RA41	Sample RA42
Grand Means	449.51 psi	440.20 psi
Stnd Dev Btwn Labs	62.18 psi	85.18 psi

Statistics based on 13 of 13 reporting participants

Samples RA41: Nitrile O-Ring & RA42: Nitrile O-Ring

Grand Mean Sample **RA41** = 449.51 psi

Grand Mean Sample **RA42** = 440.20 psi



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

WebCode	Data Flag	Sample RA41 Lab Mean	Sample RA41 Diff from Grand Mean	Sample RA41 CPV	Sample RA42 Lab Mean	Sample RA42 Diff from Grand Mean	Sample RA42 CPV
2NAVU9		70.00	1.49	0.51	70.20	1.38	0.44
3YP4DF		72.20	3.69	1.25	73.20	4.38	1.41
4RHYT9		68.68	0.17	0.06	70.54	1.72	0.55
92TUYB		66.24	-2.27	-0.77	66.88	-1.94	-0.62
CBM9D4		70.70	2.19	0.74	71.50	2.68	0.86
EMERQZ		74.80	6.29	2.14	74.00	5.18	1.66
JACPEU		65.40	-3.11	-1.06	65.00	-3.82	-1.23
KMG9QU		65.60	-2.91	-0.99	64.80	-4.02	-1.29
N7V2WR		69.80	1.29	0.44	69.80	0.98	0.32
NYCVZL		64.66	-3.85	-1.31	64.58	-4.24	-1.36
RF8KRK		68.20	-0.31	-0.10	69.40	0.58	0.19
XU4WJB		66.78	-1.73	-0.59	67.04	-1.78	-0.57
YWBA2C		67.54	-0.97	-0.33	67.66	-1.16	-0.37

Summary Statistics

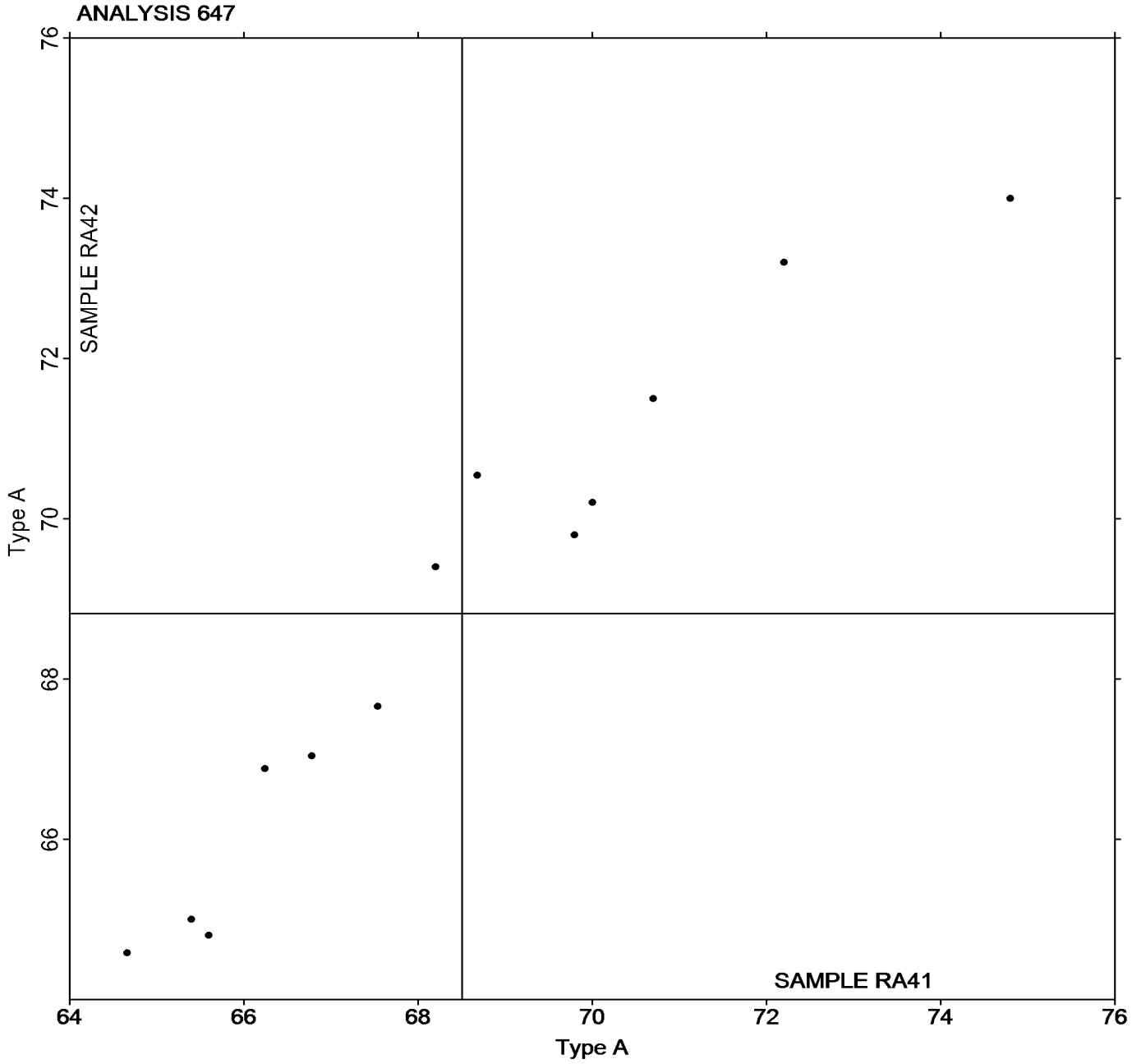
	Sample RA41	Sample RA42
Grand Means	68.508 Type A	68.815 Type A
Stnd Dev Btwn Labs	2.944 Type A	3.114 Type A

Statistics based on 13 of 13 reporting participants

Samples RA41: Nitrile O-Ring & RA42: Nitrile O-Ring

Grand Mean Sample **RA41** = 68.508 Type A

Grand Mean Sample **RA42** = 68.815 Type A



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

WebCode	Data Flag	Sample RA41 Lab Mean	Sample RA41 Diff from Grand Mean	Sample RA41 CPV	Sample RA42 Lab Mean	Sample RA42 Diff from Grand Mean	Sample RA42 CPV
2NAVU9		75.00	-0.89	-0.69	74.20	-1.80	-1.23
3YP4DF		75.40	-0.49	-0.38	75.80	-0.20	-0.14
4RHYT9		75.08	-0.81	-0.63	75.28	-0.72	-0.49
CBM9D4		76.52	0.63	0.48	76.44	0.44	0.30
JACPEU		74.44	-1.45	-1.12	74.60	-1.40	-0.95
KMG9QU		78.60	2.71	2.09	79.00	3.00	2.04
N7V2WR		75.72	-0.17	-0.13	75.08	-0.92	-0.63
NYCVZL		77.08	1.19	0.92	77.08	1.08	0.74
YWBA2C		75.20	-0.69	-0.53	76.52	0.52	0.35

Summary Statistics

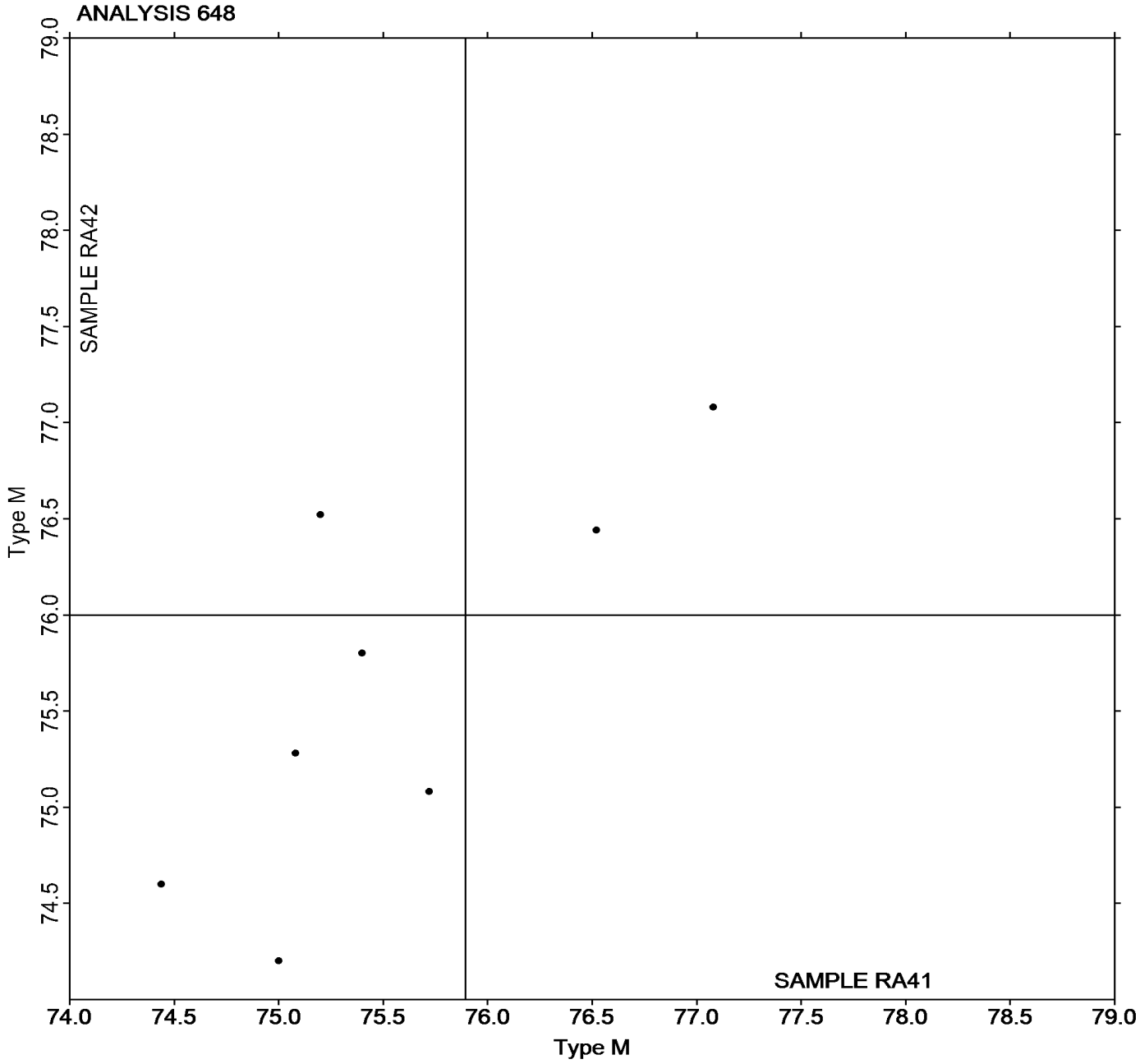
	Sample RA41	Sample RA42
Grand Means	75.893 Type M	76.000 Type M
Stnd Dev Btwn Labs	1.297 Type M	1.468 Type M

Statistics based on 9 of 9 reporting participants

Samples RA41: Nitrile O-Ring & RA42: Nitrile O-Ring

Grand Mean Sample **RA41** = 75.893 Type M

Grand Mean Sample **RA42** = 76.000 Type M



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

WebCode	Data Flag	Sample RA41 Lab Mean	Sample RA41 Diff from Grand Mean	Sample RA41 CPV	Sample RA42 Lab Mean	Sample RA42 Diff from Grand Mean	Sample RA42 CPV
2NAVU9		1.199	-0.002	-0.59	1.202	0.001	0.25
3YP4DF		1.199	-0.002	-0.65	1.200	-0.001	-0.31
4RHYT9	*	1.210	0.009	2.79	1.210	0.009	2.04
92TUYB		1.201	0.000	0.09	1.200	-0.001	-0.20
CBM9D4		1.203	0.002	0.57	1.204	0.003	0.60
EMERQZ		1.200	-0.001	-0.35	1.198	-0.003	-0.66
FK3CWZ		1.198	-0.003	-0.89	1.197	-0.004	-0.92
JACPEU		1.197	-0.004	-1.19	1.195	-0.006	-1.31
KMG9QU		1.204	0.003	0.92	1.210	0.009	1.99
N7V2WR		1.202	0.000	0.12	1.202	0.001	0.12
NYCVZL		1.203	0.002	0.46	1.202	0.001	0.28
RF8KRK		1.201	0.000	-0.11	1.197	-0.004	-0.79
XU4WJB		1.199	-0.002	-0.58	1.198	-0.003	-0.68
YWBA2C		1.199	-0.002	-0.61	1.199	-0.002	-0.40

Summary Statistics

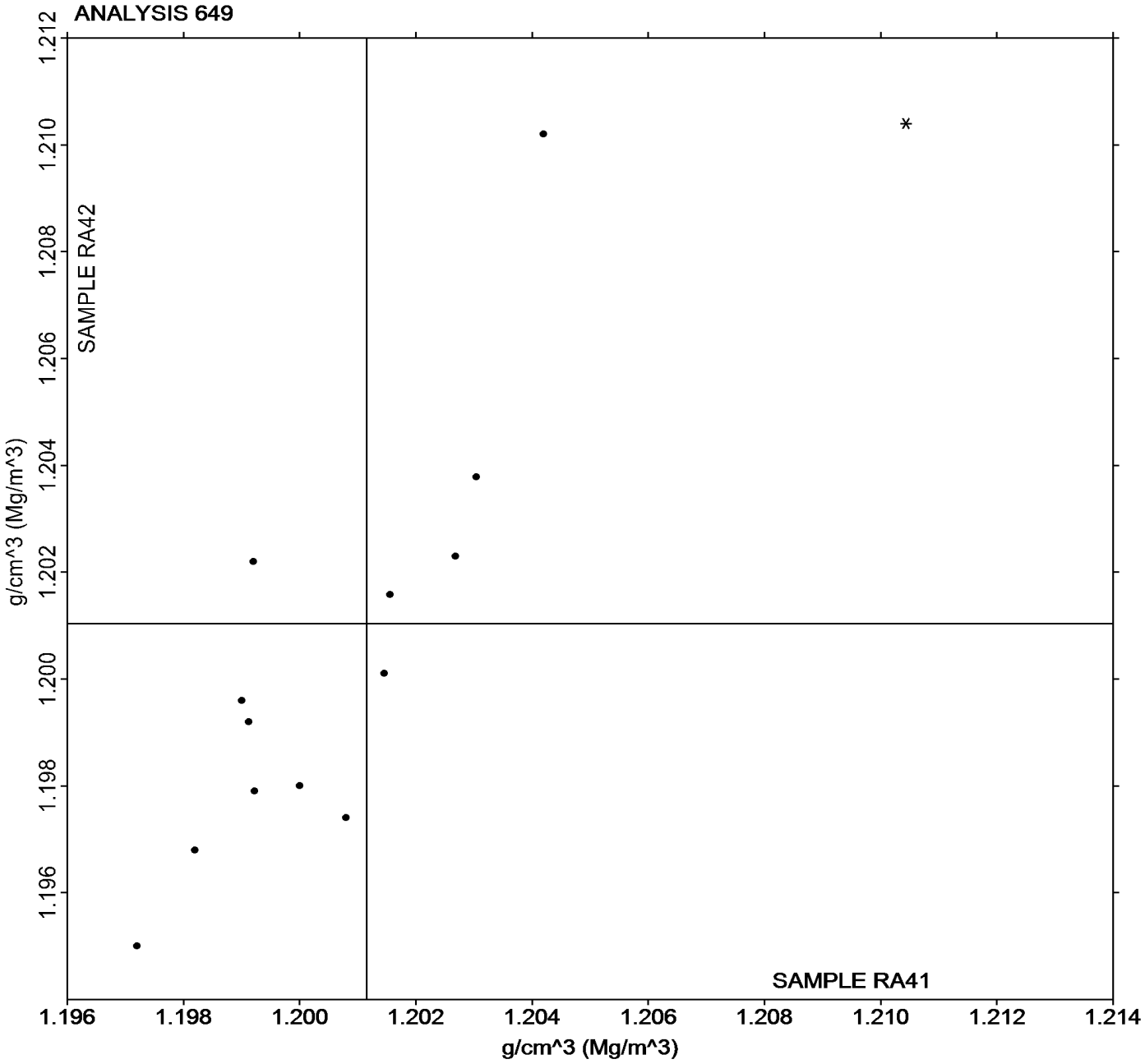
	Sample RA41	Sample RA42
Grand Means	1.2012 g/cm^3 (Mg/m^3)	1.2010 g/cm^3 (Mg/m^3)
Stnd Dev Btwn Labs	0.0033 g/cm^3 (Mg/m^3)	0.0046 g/cm^3 (Mg/m^3)

Statistics based on 14 of 14 reporting participants

Samples RA41: Nitrile O-Ring & RA42: Nitrile O-Ring

Grand Mean Sample **RA41** = 1.2012 g/cm ^ 3 (Mg/m ^ 3)

Grand Mean Sample **RA42** = 1.2010 g/cm ^ 3 (Mg/m ^ 3)



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

WebCode	Data Flag	Sample RA43 Lab Mean	Sample RA43 Diff from Grand Mean	Sample RA43 CPV	Sample RA44 Lab Mean	Sample RA44 Diff from Grand Mean	Sample RA44 CPV
2NAVU9		6.000	-2.662	-1.11	6.000	-3.094	-1.69
3YP4DF		5.000	-3.662	-1.53	12.667	3.573	1.96
4RHYT9		8.840	0.178	0.07	8.820	-0.274	-0.15
92TUYB		9.827	1.165	0.49	9.633	0.539	0.30
CBM9D4		9.000	0.338	0.14	9.000	-0.094	-0.05
JACPEU		8.133	-0.528	-0.22	9.000	-0.094	-0.05
N7V2WR		7.000	-1.662	-0.69	7.000	-2.094	-1.15
NYCVZL		10.250	1.588	0.66	9.020	-0.074	-0.04
XU4WJB		13.567	4.905	2.05	10.800	1.706	0.93
YWBA2C		9.000	0.338	0.14	9.000	-0.094	-0.05

Summary Statistics

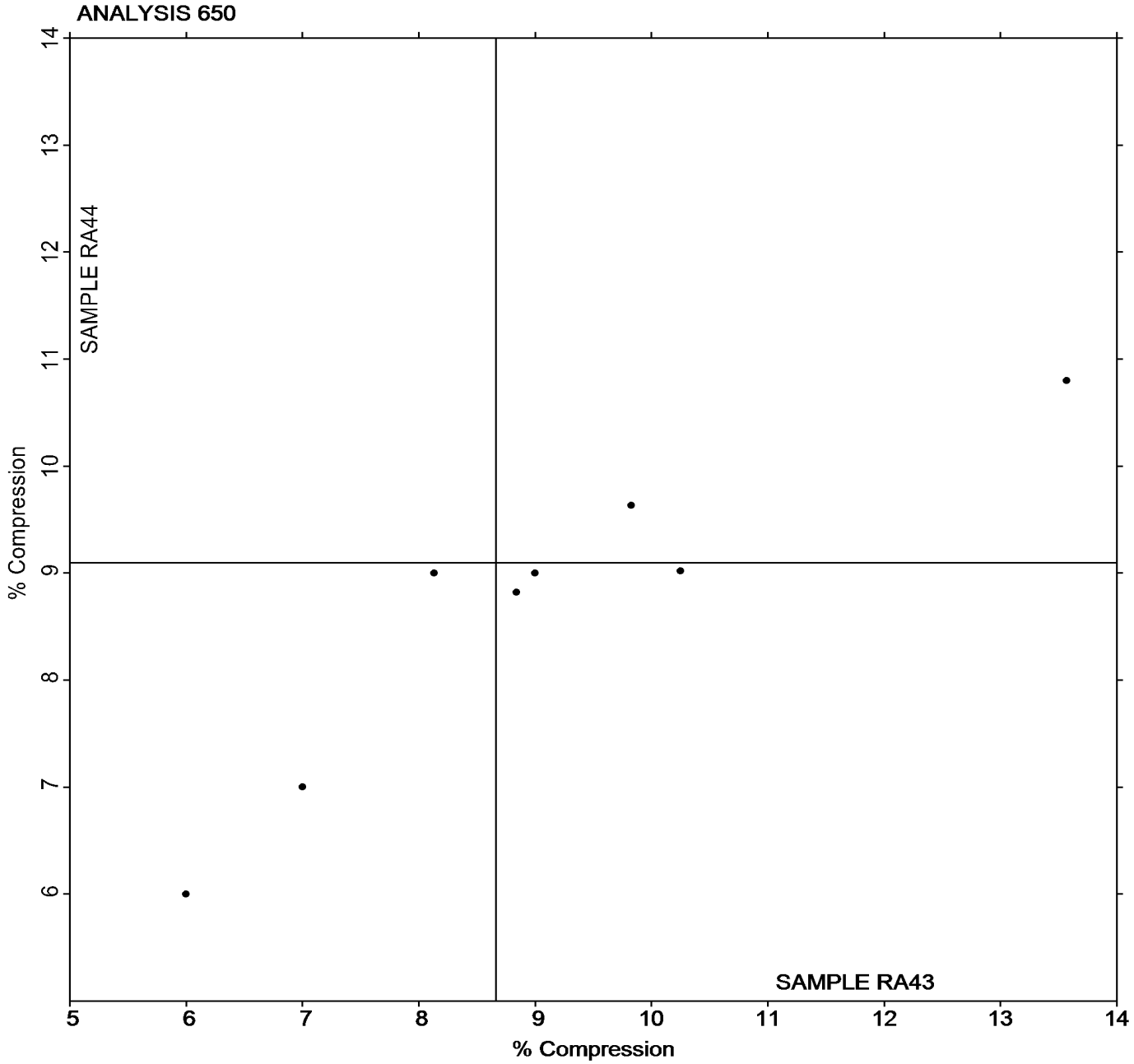
	Sample RA43	Sample RA44
Grand Means	8.6617 % Compression	9.0940 % Compression
Stnd Dev Btwn Labs	2.3975 % Compression	1.8267 % Compression

Statistics based on 10 of 10 reporting participants

Samples RA43: Nitrile O-Ring & RA44: Nitrile O-Ring

Grand Mean Sample **RA43** = 8.6617 % Compression

Grand Mean Sample **RA44** = 9.0940 % Compression



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

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

WebCode	Data Flag	Sample S41-S42 Lab Mean	Diff from Grand Mean	CPV	Sample S43-S44 Lab Mean	Diff from Grand Mean	CPV	Instr Code
36DTPC		47.33	2.01	2.04	59.03	2.17	1.73	MR
4PRZEB		45.99	0.66	0.68	59.33	2.47	1.96	TA
77TLU3		44.18	-1.15	-1.17	55.88	-0.98	-0.78	MV
92TUYB		44.85	-0.48	-0.49	56.36	-0.50	-0.40	ML
A4BLA4	X	14.06	-31.27	-31.87	40.21	-16.65	-13.24	MV
ELXKHX		45.16	-0.17	-0.17	56.68	-0.18	-0.14	MR
F8F3AU		45.32	-0.01	-0.01	57.37	0.51	0.40	MR
GE9UVT		46.47	1.14	1.16	56.63	-0.23	-0.18	MR
KMG9QU		45.58	0.25	0.25	57.26	0.40	0.32	MV
NL63GL		44.77	-0.56	-0.57	55.69	-1.17	-0.93	MR
V9G98E		44.90	-0.43	-0.44	56.63	-0.23	-0.18	MR
VQVRTK		46.02	0.69	0.70	57.05	0.19	0.15	MR
VTXP4D		43.35	-1.98	-2.02	54.53	-2.33	-1.85	MR
YZAMLG		45.68	0.36	0.36	57.55	0.69	0.55	MR
ZHQ6DF		45.00	-0.33	-0.33	56.03	-0.83	-0.66	MR

Summary Statistics

	Sample S41-S42	Sample S43-S44
Grand Means	45.328 ML 1 + 4	56.859 ML 1 + 4
Stnd Dev Btwn Labs	0.981 ML 1 + 4	1.257 ML 1 + 4

Statistics based on 14 of 15 reporting participants

Samples S41-S42: NBR & S43-S44: Butyl

Comments on Assigned Data Flags for Test #660

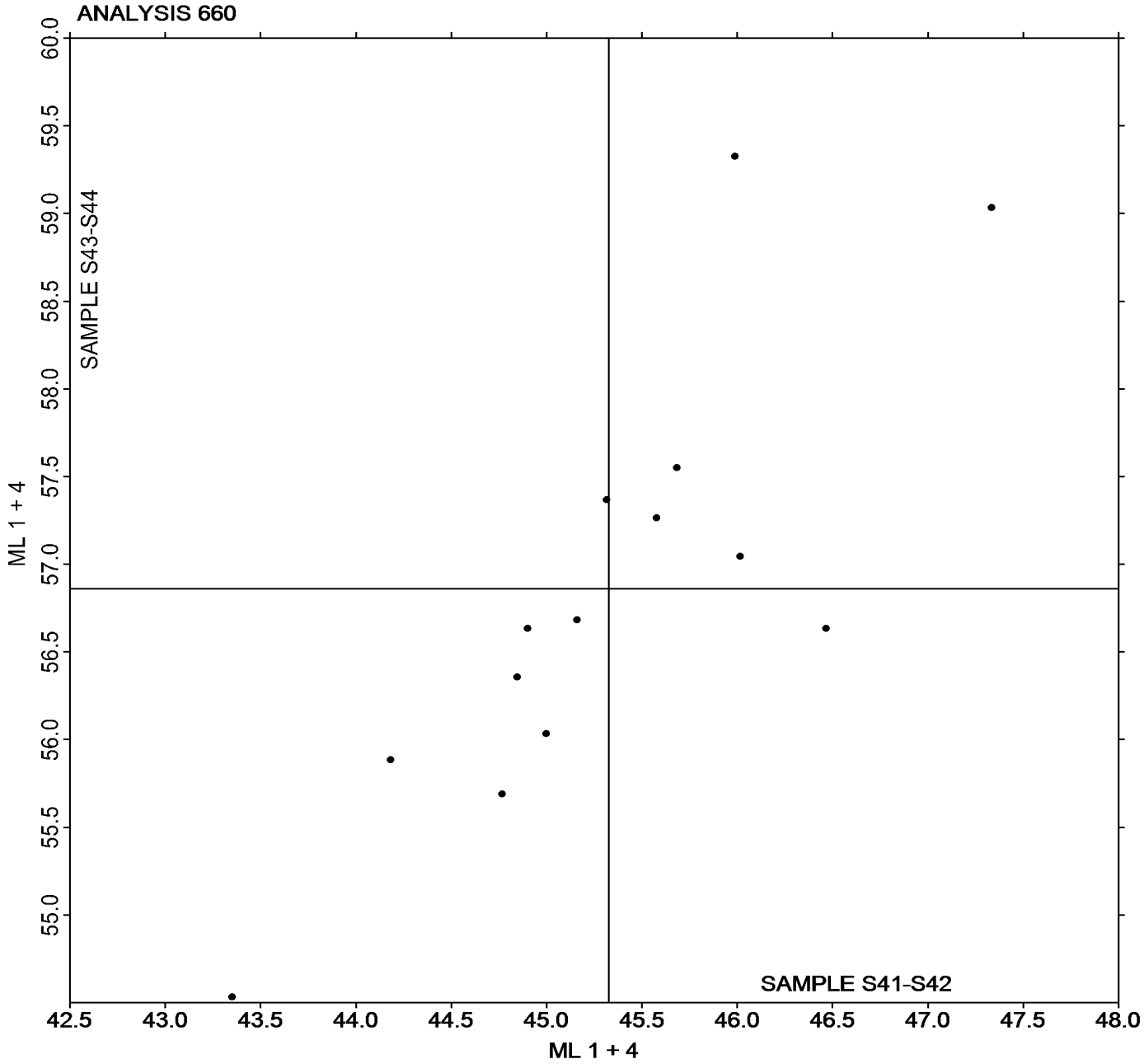
A4BLA4 (X) - Extreme Data for sample group S41-S42.

Key to Instrument Codes Reported by Participants

ML	Alpha Technologies/Monsanto model not specified	MR	Alpha Technologies Model MV2000/MV2000E
MV	MonTech	TA	TA Instruments (any model)

Grand Mean Sample **S41-S42** = 45.328 ML 1 + 4

Grand Mean Sample **S43-S44** = 56.859 ML 1 + 4



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

Rubber Interlaboratory Testing Program

Analysis 661

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

WebCode	Data Flag	Sample S41-S42 Lab Mean	Diff from Grand Mean	CPV	Sample S43-S44 Lab Mean	Diff from Grand Mean	CPV	Instr Code
36DTPC		47.33	1.99	1.95	56.73	2.16	1.76	MR
4PRZEB		45.99	0.65	0.64	56.87	2.29	1.87	TA
77TLU3		44.18	-1.16	-1.14	54.51	-0.07	-0.06	MV
92TUYB		44.85	-0.50	-0.49	54.19	-0.38	-0.31	ML
A4BLA4	X	14.06	-31.28	-30.67	26.69	-27.89	-22.74	MV
F8F3AU		45.32	-0.02	-0.02	54.47	-0.11	-0.09	MR
GE9UVT		46.47	1.13	1.10	54.65	0.07	0.06	MR
KMG9QU		45.58	0.24	0.23	55.02	0.44	0.36	MV
NL63GL		44.77	-0.57	-0.56	53.51	-1.06	-0.87	MR
V9G98E		44.90	-0.44	-0.43	53.55	-1.03	-0.84	MR
VQVRTK		46.02	0.68	0.66	54.29	-0.29	-0.24	MR
VTXP4D		43.35	-1.99	-1.95	52.63	-1.94	-1.58	MR
YZAMLG		45.68	0.34	0.34	55.47	0.89	0.73	MR
ZHQ6DF		45.00	-0.34	-0.33	53.60	-0.98	-0.80	MR

Summary Statistics

	Sample S41-S42	Sample S43-S44
Grand Means	45.341 ML 1 + 8	54.576 ML 1 + 8
Stnd Dev Btwn Labs	1.020 ML 1 + 8	1.227 ML 1 + 8

Statistics based on 13 of 14 reporting participants

Samples S41-S42: NBR & S43-S44: Butyl

Comments on Assigned Data Flags for Test #661

A4BLA4 (X) - Extreme Data.

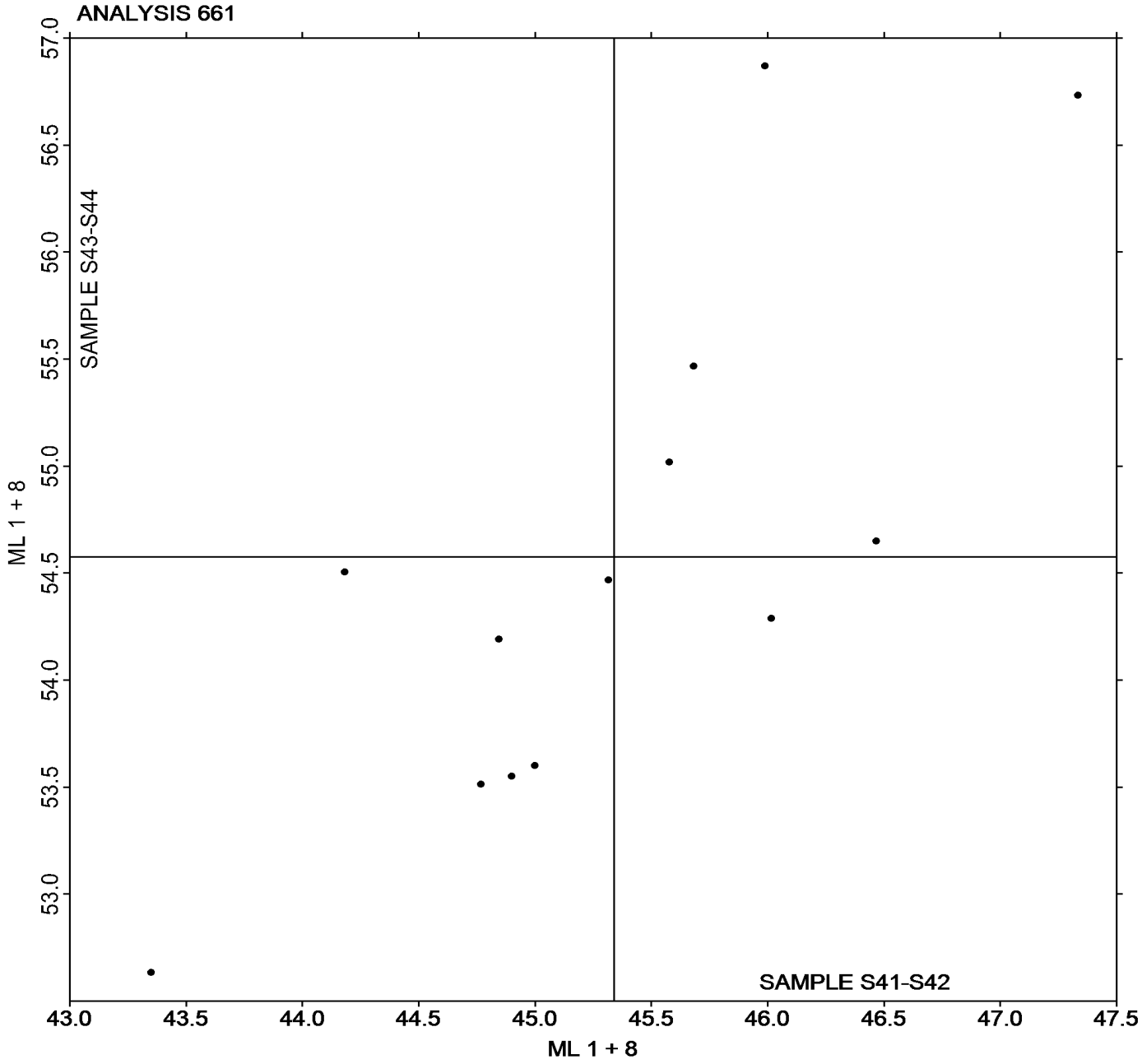
Key to Instrument Codes Reported by Participants

ML	Alpha Technologies/Monsanto model not specified	MR	Alpha Technologies Model MV2000/MV2000E
MV	Montech	TA	TA Instruments (any model)

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

Grand Mean Sample **S41-S42** = 45.341 ML 1 + 8

Grand Mean Sample **S43-S44** = 54.576 ML 1 + 8



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

WebCode	Data Flag	Sample S41-S42 Lab Mean	Diff from Grand Mean	CPV	Sample S43-S44 Lab Mean	Diff from Grand Mean	CPV	Instr Code
92TUYB		4.598	-0.493	-0.77	8.420	0.432	0.29	ML
A4BLA4		6.100	1.009	1.58	5.395	-2.593	-1.76	MV
KMG9QU		4.647	-0.445	-0.70	8.492	0.504	0.34	MV
YZAMLG		4.772	-0.320	-0.50	8.522	0.534	0.36	MR
ZHQ6DF		5.340	0.249	0.39	9.110	1.122	0.76	MR

Summary Statistics

	Sample S41-S42	Sample S43-S44
Grand Means	5.0913 seconds	7.9877 seconds
Stnd Dev Btwn Labs	0.6368 seconds	1.4754 seconds

Statistics based on 5 of 5 reporting participants

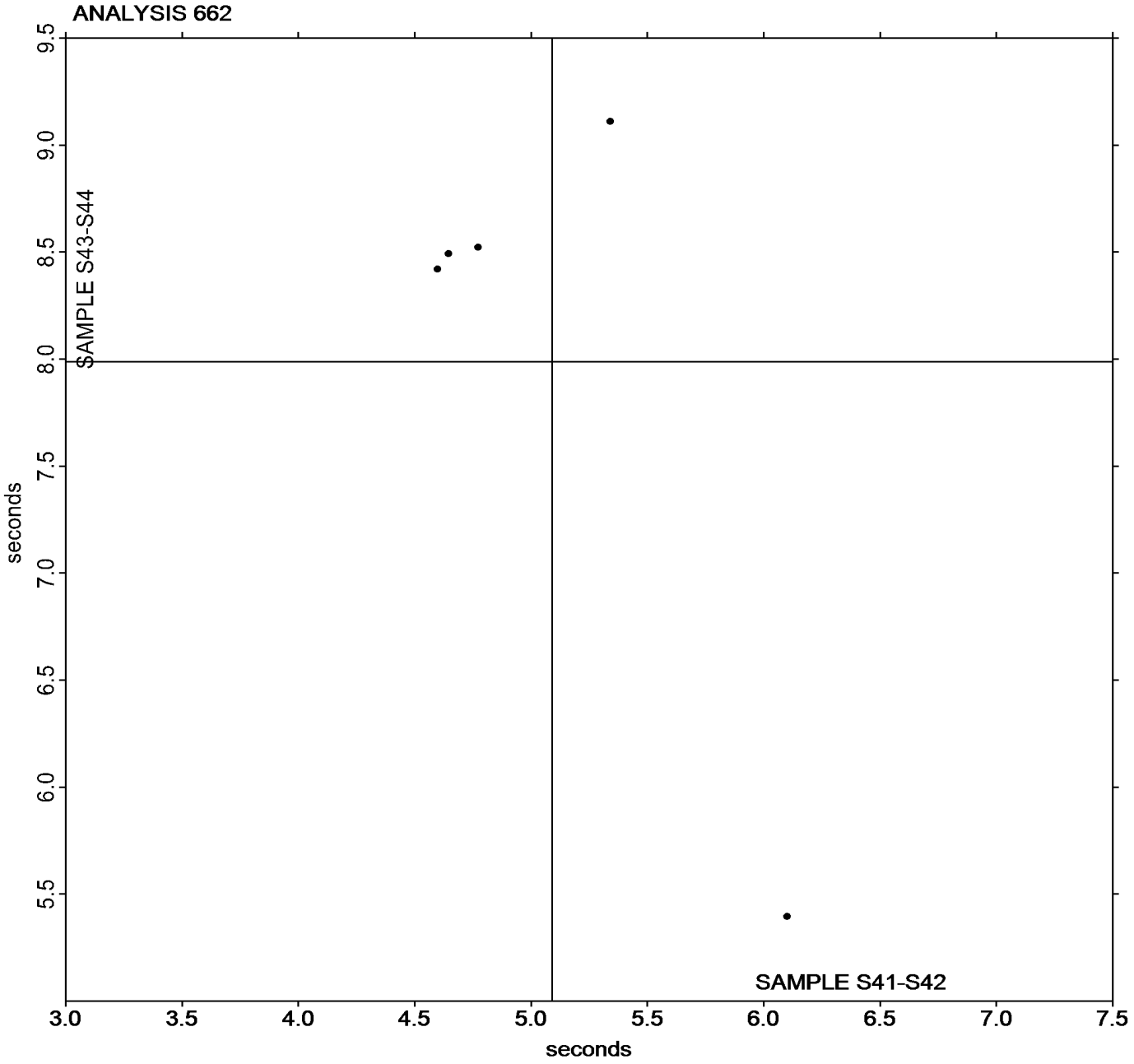
Samples S41-S42: NBR & S43-S44: Butyl

Key to Instrument Codes Reported by Participants

ML Alpha Technologies/Monsanto model not specified
MV MonTech
MR Alpha Technologies Model MV2000/MV2000E

Grand Mean Sample **S41-S42** = 5.0913 seconds

Grand Mean Sample **S43-S44** = 7.9877 seconds



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

WebCode	Data Flag	Sample S41-S42 Lab Mean	Diff from Grand Mean	CPV	Sample S43-S44 Lab Mean	Diff from Grand Mean	CPV	Instr Code
92TUYB		92.23	4.66	0.54	91.61	2.03	0.62	ML
A4BLA4		72.15	-15.42	-1.79	83.74	-5.84	-1.78	MV
KMG9QU		90.87	3.30	0.38	90.60	1.03	0.31	MV
YZAMLG		91.37	3.80	0.44	90.95	1.38	0.42	MR
ZHQ6DF		91.22	3.65	0.42	90.98	1.40	0.43	MR

Summary Statistics

	Sample S41-S42	Sample S43-S44
Grand Means	87.569 percent	89.578 percent
Stnd Dev Btwn Labs	8.633 percent	3.284 percent

Statistics based on 5 of 5 reporting participants

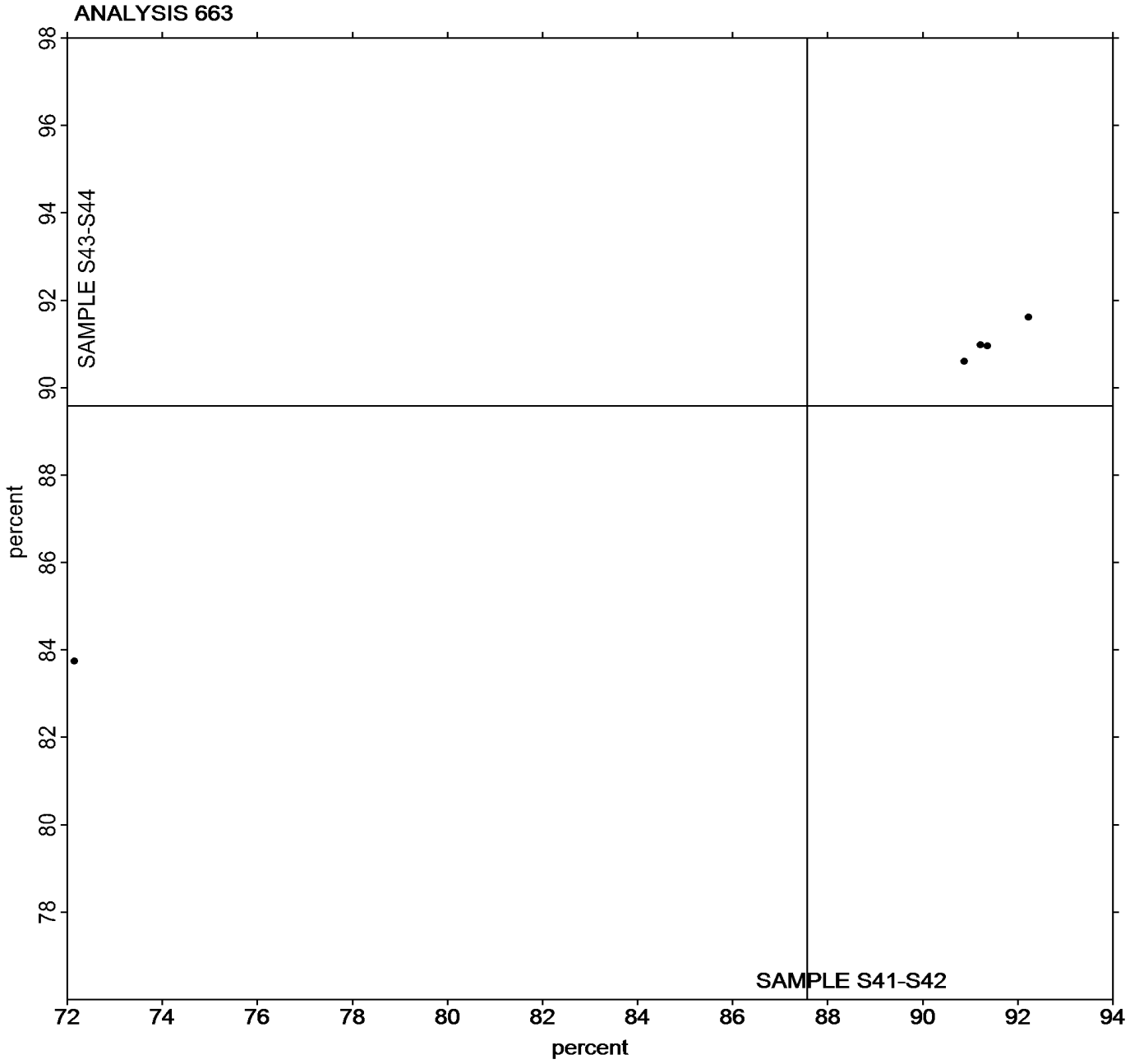
Samples S41-S42: NBR & S43-S44: Butyl

Key to Instrument Codes Reported by Participants

ML Alpha Technologies/Monsanto model not specified
MR Alpha Technologies Model MV2000/MV2000E
MV Montech

Grand Mean Sample **S41-S42** = 87.569 percent

Grand Mean Sample **S43-S44** = 89.578 percent



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

WebCode	Data Flag	Sample S41-S42 Lab Mean	Diff from Grand Mean	CPV	Sample S43-S44 Lab Mean	Diff from Grand Mean	CPV	Instr Code
92TUYB		372.1	-45.5	-1.55	499.6	-49.0	-1.64	ML
A4BLA4		409.0	-8.6	-0.29	577.5	28.9	0.97	MV
KMG9QU		450.4	32.8	1.12	564.6	16.0	0.54	MV
YZAMLG		426.2	8.6	0.29	556.2	7.6	0.25	MR
ZHQ6DF		430.3	12.7	0.43	545.0	-3.6	-0.12	XX

Summary Statistics

	Sample S41-S42	Sample S43-S44
Grand Means	417.60 M-s	548.59 M-s
Stnd Dev Btwn Labs	29.41 M-s	29.84 M-s

Statistics based on 5 of 5 reporting participants

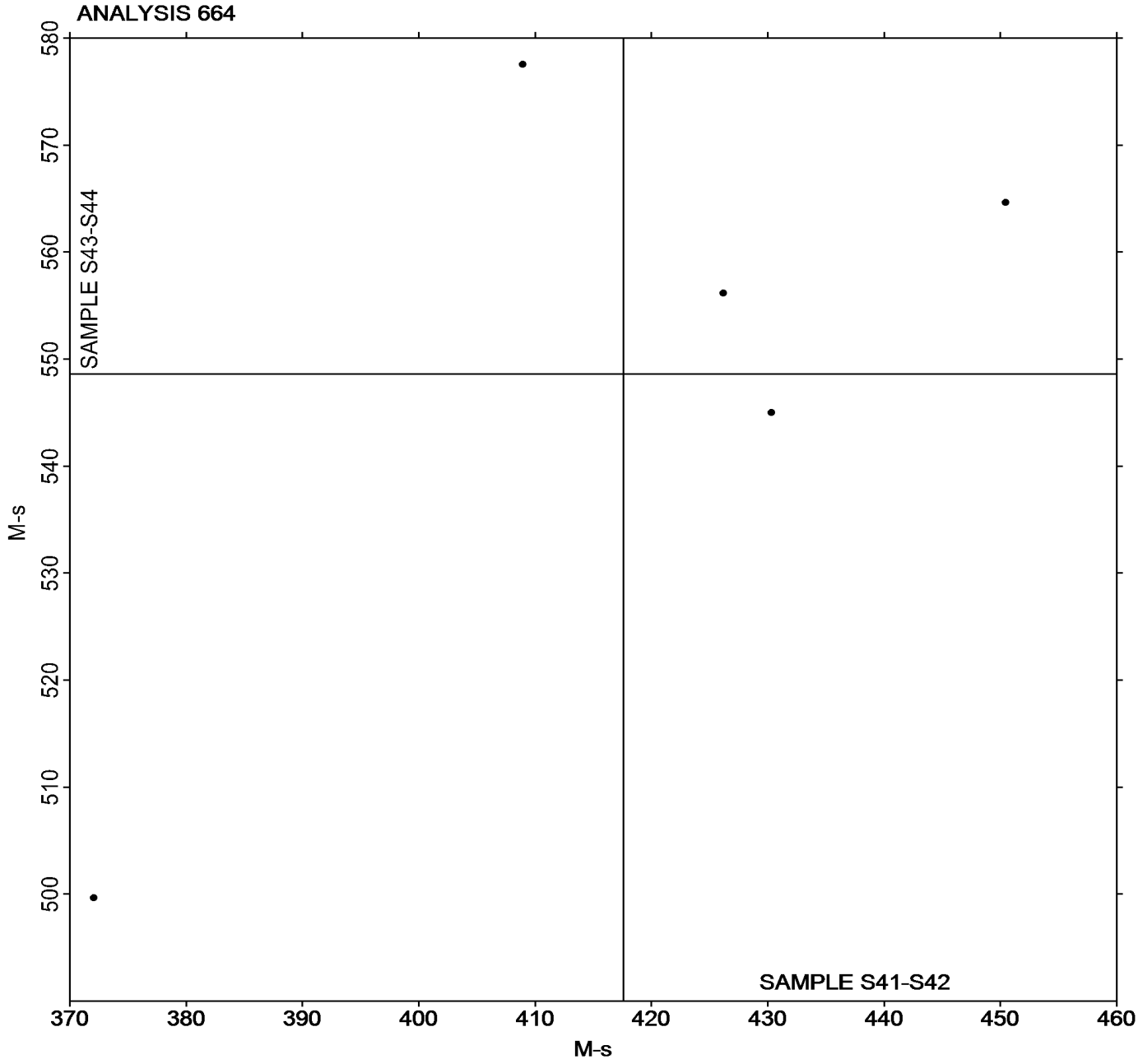
Samples S41-S42: NBR & S43-S44: Butyl

Key to Instrument Codes Reported by Participants

ML	Alpha Technologies/Monsanto model not specified
MV	MonTech
MR	Alpha Technologies Model MV2000/MV2000E
XX	Instrument make/model not specified by lab

Grand Mean Sample **S41-S42** = 417.60 M-s

Grand Mean Sample **S43-S44** = 548.59 M-s



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

WebCode	Data Flag	Sample W45-W46 Lab Mean	Diff from Grand Mean	CPV	Sample W47-W48 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2NAVU9		0.8917	0.0078	0.12	1.483	0.041	0.23	MC
3YP4DF		0.9283	0.0444	0.68	1.603	0.161	0.91	MC
6MLTCA		0.7833	-0.1006	-1.54	1.475	0.032	0.18	MC
77TLU3		0.7433	-0.1406	-2.15	1.117	-0.326	-1.85	MC
92TUYB		0.9717	0.0877	1.34	1.620	0.177	1.01	ME
A4BLA4		0.9167	0.0327	0.50	1.540	0.097	0.55	MR
AHEWU6		0.9150	0.0311	0.48	1.590	0.147	0.84	MC
BCMZRY		0.9083	0.0244	0.37	1.495	0.052	0.30	ME
CBM9D4		0.8717	-0.0123	-0.19	1.487	0.044	0.25	MC
ELXKHX		0.8900	0.0061	0.09	1.605	0.162	0.92	MC
F6AKBY		0.9600	0.0761	1.17	1.298	-0.144	-0.82	XX
GE9UVT		0.8767	-0.0073	-0.11	1.492	0.049	0.28	MC
KMG9QU		0.9883	0.1044	1.60	1.658	0.216	1.23	XX
NL63GL		0.9183	0.0344	0.53	1.482	0.039	0.22	MC
PDUZVK		0.9500	0.0661	1.01	1.510	0.067	0.38	MM
VQVRTK		0.8467	-0.0373	-0.57	1.478	0.036	0.20	ME
X6QVAF		0.7917	-0.0923	-1.41	1.140	-0.303	-1.72	MD
XU4WJB		0.8567	-0.0273	-0.42	1.507	0.064	0.36	MC
YWBA2C		0.8550	-0.0289	-0.44	1.137	-0.306	-1.74	ME
YZAMLG		0.8150	-0.0689	-1.06	1.137	-0.306	-1.74	MC

Summary Statistics

	Sample W45-W46	Sample W47-W48
Grand Means	0.88392 minutes	1.4427 minutes
Stnd Dev Btwn Labs	0.06528 minutes	0.1760 minutes

Statistics based on 20 of 20 reporting participants

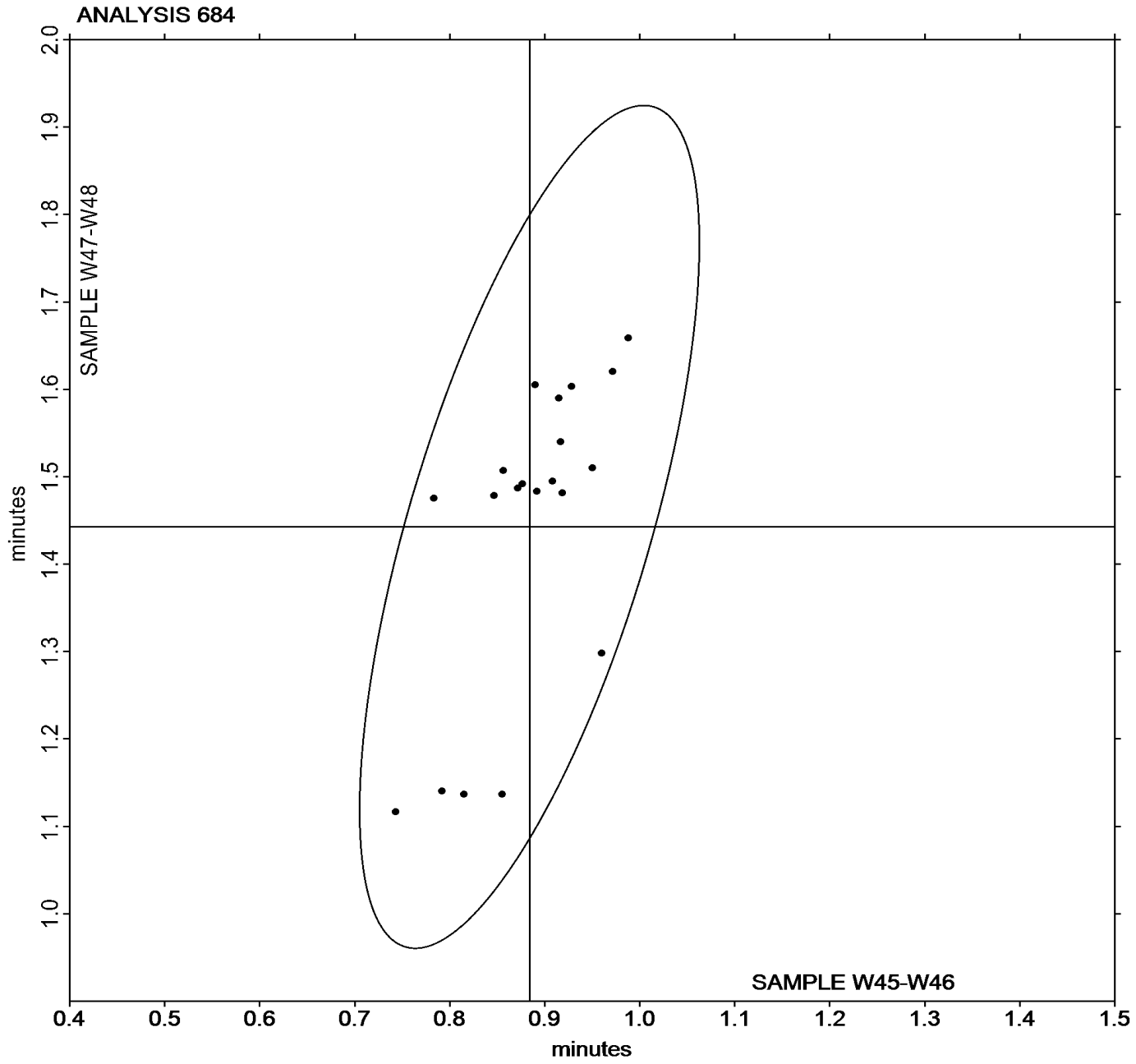
Samples W45-W46: EPDM Compound & W47-W48: EPDM Compound

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	XX	Instrument model not specified by lab

Grand Mean Sample **W45-W46** = 0.88392 minutes

Grand Mean Sample **W47-W48** = 1.4427 minutes



MDR Vulcanization-Scorch Time, Ts1 (minutes)

WebCode	Data Flag	Sample W45-W46 Lab Mean	Sample W45-W46 Diff from Grand Mean	Sample W45-W46 CPV	Sample W47-W48 Lab Mean	Sample W47-W48 Diff from Grand Mean	Sample W47-W48 CPV	Instr Code
2NAVU9		0.9945	0.0065	0.06	1.608	0.022	0.09	MC
3YP4DF		1.0500	0.0620	0.58	1.795	0.208	0.90	MC
6MLTCA		0.8307	-0.1573	-1.47	1.498	-0.089	-0.38	MC
77TLU3		0.7983	-0.1897	-1.77	1.175	-0.412	-1.77	MC
92TUYB		1.0417	0.0537	0.50	1.677	0.090	0.39	ME
A4BLA4	*	1.2983	0.3103	2.90	2.187	0.600	2.59	MR
AHEWU6		1.0083	0.0203	0.19	1.717	0.130	0.56	MC
BCMZRY		1.0167	0.0287	0.27	1.668	0.082	0.35	ME
CBM9D4		0.8717	-0.1163	-1.09	1.487	-0.100	-0.43	MC
ELXKHX		0.9650	-0.0230	-0.21	1.688	0.102	0.44	MC
F6AKBY		1.0600	0.0720	0.67	1.432	-0.155	-0.67	MR
GE9UVT		0.9933	0.0053	0.05	1.660	0.073	0.32	MC
KMG9QU		1.1167	0.1287	1.20	1.853	0.267	1.15	XX
NL63GL		1.0433	0.0553	0.52	1.645	0.058	0.25	MC
PDUZVK		1.0867	0.0987	0.92	1.735	0.148	0.64	MM
V9G98E		1.0017	0.0137	0.13	1.553	-0.033	-0.14	MR
VQVRTK		0.9167	-0.0713	-0.67	1.548	-0.038	-0.16	ME
X6QVAF		0.9333	-0.0547	-0.51	1.308	-0.278	-1.20	MD
XU4WJB		0.9117	-0.0763	-0.71	1.583	-0.003	-0.01	MC
YWBA2C		0.9033	-0.0847	-0.79	1.158	-0.428	-1.85	ME
YZAMLG		0.9100	-0.0780	-0.73	1.267	-0.320	-1.38	MC
ZHQ6DF		0.9842	-0.0038	-0.04	1.663	0.076	0.33	MC

Summary Statistics

	Sample W45-W46	Sample W47-W48
Grand Means	0.98800 minutes	1.5866 minutes
Stnd Dev Btwn Labs	0.10713 minutes	0.2321 minutes

Statistics based on 22 of 22 reporting participants

Samples W45-W46: EPDM Compound & W47-W48: EPDM Compound

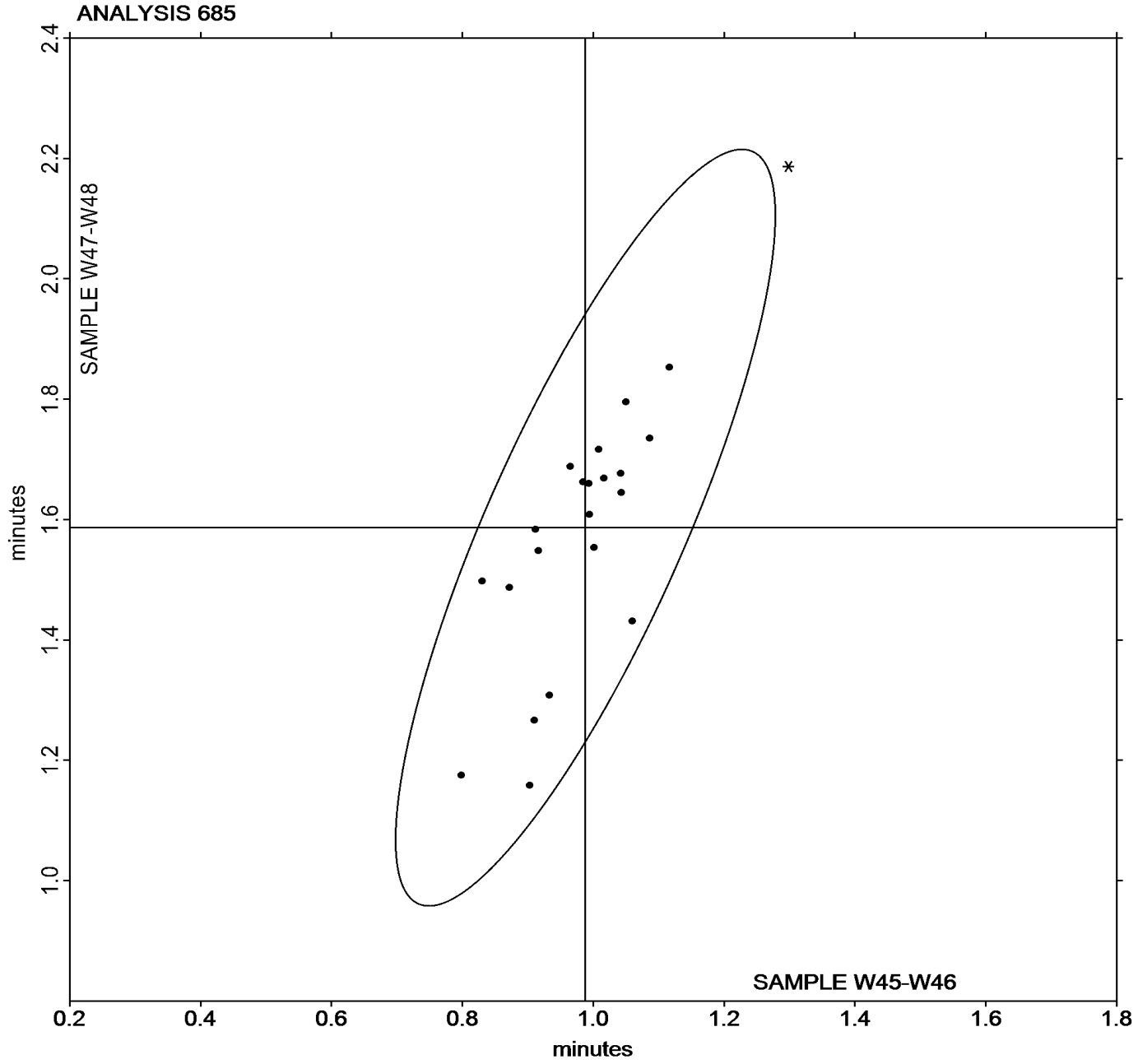
Key to Instrument Codes Reported by Participants

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	XX	Instrument model not specified by lab

MDR Vulcanization-Scorch Time, Ts1 (minutes)

Grand Mean Sample **W45-W46** = 0.98800 minutes

Grand Mean Sample **W47-W48** = 1.5866 minutes



WebCode	Data Flag	Sample W45-W46 Lab Mean	Diff from Grand Mean	CPV	Sample W47-W48 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2NAVU9		1.681	0.026	0.25	3.056	0.173	0.50	MC
3YP4DF		1.710	0.056	0.53	3.185	0.302	0.87	MC
6MLTCA		1.618	-0.036	-0.34	3.002	0.119	0.34	MC
77TLU3		1.567	-0.088	-0.83	2.330	-0.553	-1.59	MC
92TUYB		1.788	0.134	1.27	3.248	0.365	1.05	ME
A4BLA4		1.690	0.036	0.34	3.000	0.117	0.34	MR
AHEWU6		1.717	0.062	0.59	3.148	0.265	0.76	MC
BCMZRY		1.620	-0.034	-0.32	2.950	0.067	0.19	ME
CBM9D4		1.400	-0.254	-2.41	2.550	-0.333	-0.96	MC
ELXKHX		1.672	0.017	0.17	3.162	0.279	0.80	MC
F6AKBY	*	1.800	0.146	1.38	2.565	-0.318	-0.91	MR
GE9UVT		1.632	-0.023	-0.21	2.972	0.089	0.26	MC
KMG9QU		1.768	0.114	1.08	3.148	0.265	0.76	XX
NL63GL		1.753	0.099	0.94	3.130	0.247	0.71	MC
PDUZVK		1.697	0.042	0.40	3.053	0.170	0.49	MM
V9G98E		1.742	0.087	0.83	3.045	0.162	0.47	MR
VQVRTK		1.608	-0.046	-0.43	2.943	0.060	0.17	ME
X6QVAF		1.463	-0.191	-1.81	2.128	-0.755	-2.17	MD
XU4WJB		1.588	-0.066	-0.62	3.020	0.137	0.39	MC
YWBA2C		1.605	-0.049	-0.47	2.347	-0.536	-1.54	ME
YZAMLG		1.510	-0.144	-1.37	2.238	-0.645	-1.85	MC
ZHQ6DF		1.763	0.109	1.03	3.203	0.320	0.92	MC

Summary Statistics

	Sample W45-W46	Sample W47-W48
Grand Means	1.6542 minutes	2.8829 minutes
Stnd Dev Btwn Labs	0.1056 minutes	0.3481 minutes

Statistics based on 22 of 22 reporting participants

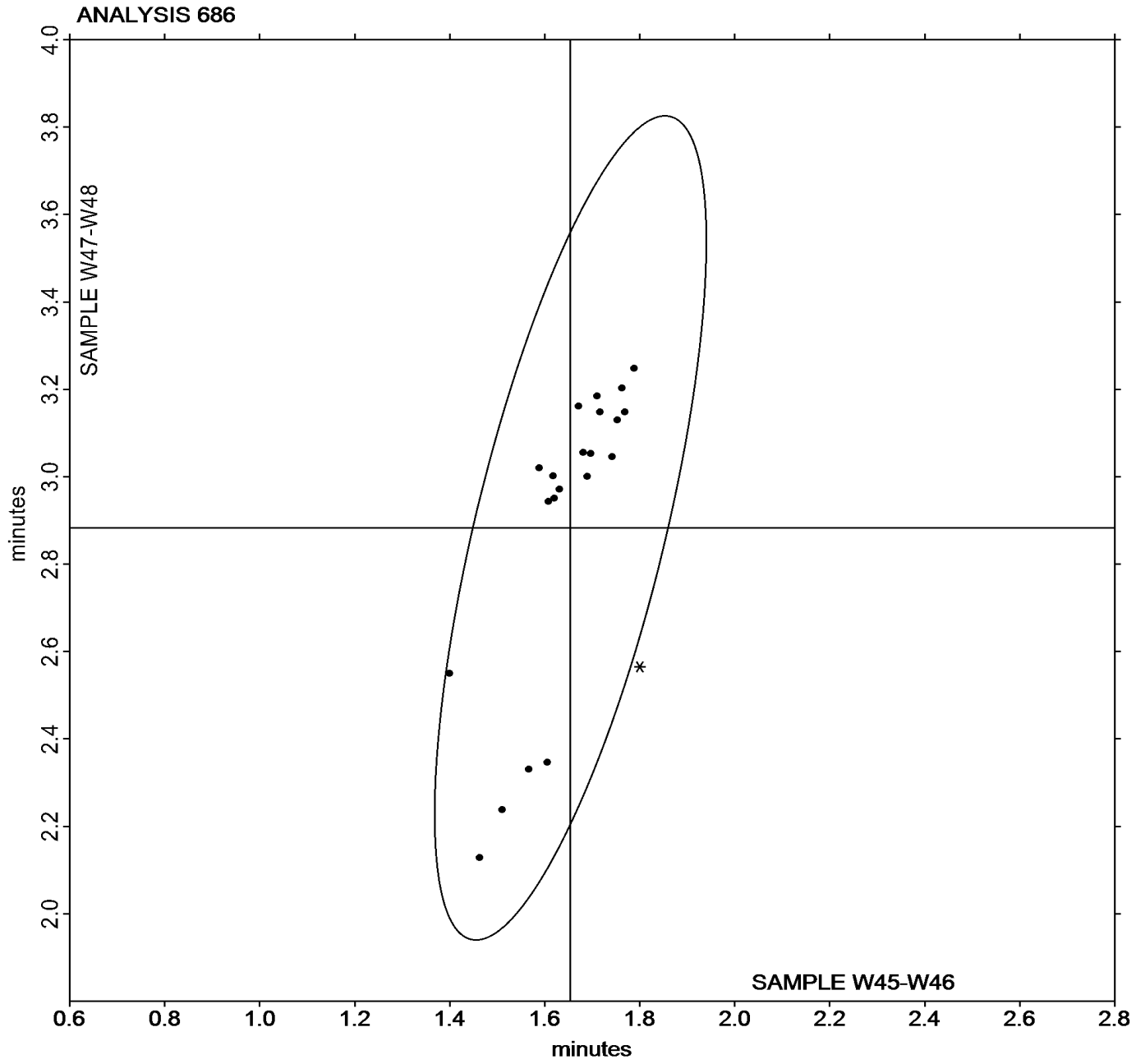
Samples W45-W46: EPDM Compound & W47-W48: EPDM Compound

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	XX	Instrument model not specified by lab

Grand Mean Sample **W45-W46** = 1.6542 minutes

Grand Mean Sample **W47-W48** = 2.8829 minutes



WebCode	Data Flag	Sample W45-W46 Lab Mean	Diff from Grand Mean	CPV	Sample W47-W48 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2NAVU9		3.661	0.046	0.17	5.697	0.245	0.39	MC
3YP4DF		3.643	0.029	0.10	5.670	0.218	0.35	MC
6MLTCA		3.662	0.048	0.17	5.901	0.449	0.71	MC
77TLU3		3.150	-0.465	-1.65	4.232	-1.221	-1.94	MC
92TUYB		3.778	0.164	0.58	5.847	0.394	0.63	ME
A4BLA4		3.643	0.029	0.10	5.677	0.224	0.36	MR
AHEWU6		3.657	0.042	0.15	5.695	0.243	0.38	MC
BCMZRY		3.340	-0.275	-0.98	5.338	-0.114	-0.18	ME
CBM9D4		3.230	-0.385	-1.37	4.697	-0.756	-1.20	XX
ELXKHX		3.675	0.060	0.21	5.700	0.248	0.39	MC
F6AKBY	*	3.950	0.335	1.19	5.065	-0.387	-0.61	MR
GE9UVT		3.433	-0.181	-0.65	5.342	-0.111	-0.18	MC
KMG9QU		4.252	0.637	2.27	6.327	0.874	1.39	XX
NL63GL		3.703	0.089	0.32	5.670	0.218	0.35	MC
PDUZVK		3.892	0.277	0.99	6.185	0.733	1.16	MM
V9G98E		3.923	0.309	1.10	6.123	0.671	1.06	MR
VQVRTK		3.715	0.100	0.36	5.998	0.546	0.87	ME
X6QVAF		3.220	-0.395	-1.40	4.375	-1.077	-1.71	MD
XU4WJB		3.367	-0.248	-0.88	5.258	-0.194	-0.31	MC
YWBA2C		3.530	-0.085	-0.30	4.652	-0.801	-1.27	ME
YZAMLG		3.228	-0.386	-1.38	4.395	-1.057	-1.68	MC
ZHQ6DF		3.871	0.256	0.91	6.108	0.656	1.04	MC

Summary Statistics

	Sample W45-W46	Sample W47-W48
Grand Means	3.6147 minutes	5.4524 minutes
Stnd Dev Btwn Labs	0.2810 minutes	0.6308 minutes

Statistics based on 22 of 22 reporting participants

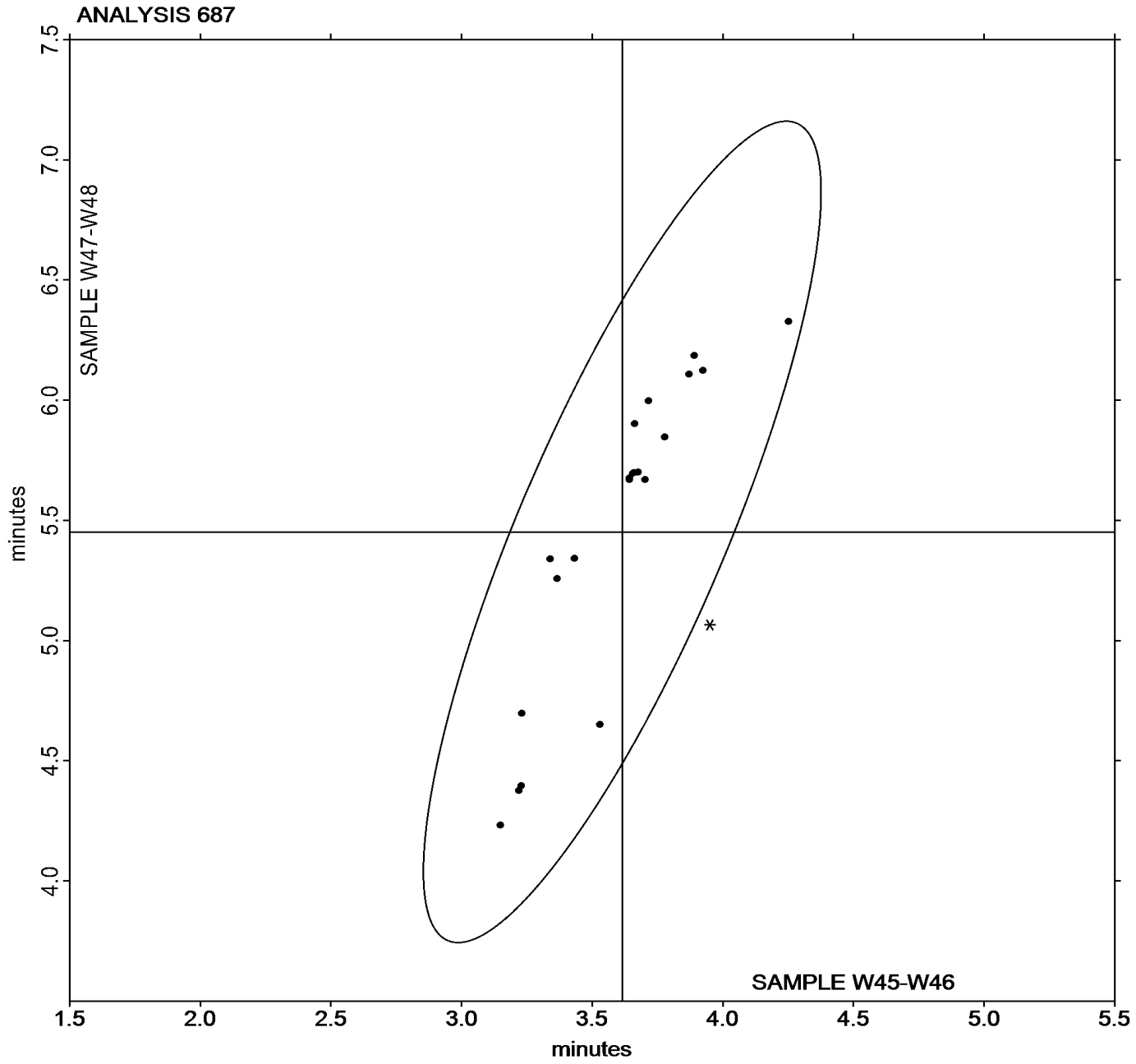
Samples W45-W46: EPDM Compound & W47-W48: EPDM Compound

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	XX	Instrument model not specified by lab

Grand Mean Sample **W45-W46** = 3.6147 minutes

Grand Mean Sample **W47-W48** = 5.4524 minutes



WebCode	Data Flag	Sample W45-W46 Lab Mean	Diff from Grand Mean	CPV	Sample W47-W48 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2NAVU9		3.357	-0.206	-0.58	2.920	-0.136	-0.44	MC
3YP4DF		3.412	-0.151	-0.43	2.863	-0.193	-0.62	MC
6MLTCA		3.554	-0.009	-0.03	3.172	0.115	0.37	MC
77TLU3	*	3.950	0.387	1.09	3.718	0.662	2.13	MC
92TUYB		3.377	-0.186	-0.52	2.930	-0.127	-0.41	ME
A4BLA4		3.123	-0.440	-1.24	2.690	-0.366	-1.18	MR
AHEWU6		3.475	-0.088	-0.25	2.953	-0.103	-0.33	MC
BCMZRY		3.772	0.209	0.59	2.953	-0.103	-0.33	ME
CBM9D4		4.507	0.944	2.66	3.780	0.724	2.32	MC
ELXKHX		3.483	-0.080	-0.23	3.110	0.053	0.17	MC
F6AKBY		3.122	-0.441	-1.24	2.767	-0.290	-0.93	MR
GE9UVT		3.755	0.192	0.54	3.120	0.064	0.20	MC
KMG9QU		3.892	0.329	0.93	3.380	0.324	1.04	MM
NL63GL		3.195	-0.368	-1.04	2.697	-0.360	-1.16	MC
PDUZVK		3.370	-0.193	-0.54	2.710	-0.346	-1.11	MM
V9G98E		3.258	-0.305	-0.86	2.713	-0.343	-1.10	MR
VQVRTK		3.543	-0.020	-0.06	3.031	-0.025	-0.08	ME
X6QVAF		3.620	0.057	0.16	3.228	0.172	0.55	MD
XU4WJB		4.124	0.562	1.58	3.334	0.277	0.89	MC
YWBA2C		3.323	-0.239	-0.67	2.992	-0.065	-0.21	ME
YZAMLG		3.958	0.395	1.11	3.370	0.314	1.01	MC
ZHQ6DF		3.214	-0.349	-0.98	2.809	-0.247	-0.79	MC

Summary Statistics

	Sample W45-W46	Sample W47-W48
Grand Means	3.5629 lbf.in	3.0564 lbf.in
Stnd Dev Btwn Labs	0.3553 lbf.in	0.3114 lbf.in

Statistics based on 22 of 22 reporting participants

Summary Statistics in SI Units

	Sample W45-W46	Sample W47-W48
Grand Means	4.0255 dN.m	3.4532 dN.m
Stnd Dev Btwn Labs	0.4014 dN.m	0.3518 dN.m

Statistics based on 22 of 22 reporting participants

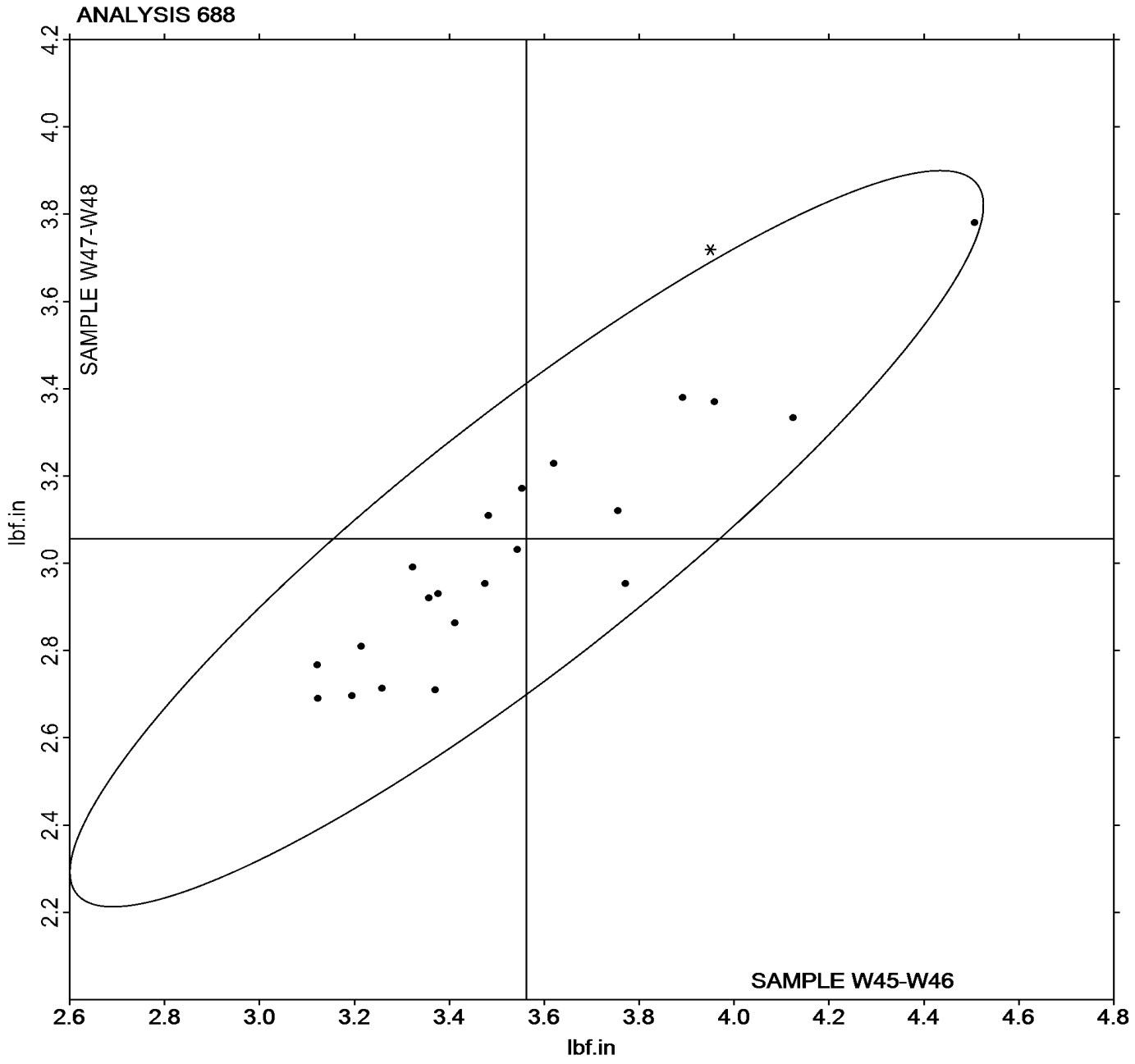
Samples W45-W46: EPDM Compound & W47-W48: EPDM Compound

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		

Grand Mean Sample **W45-W46** = 3.5629 lbf.in

Grand Mean Sample **W47-W48** = 3.0564 lbf.in



WebCode	Data Flag	Sample W45-W46 Lab Mean	Diff from Grand Mean	CPV	Sample W47-W48 Lab Mean	Diff from Grand Mean	CPV	Instr Code
2NAVU9		10.88	0.01	0.01	11.44	0.43	0.73	MC
3YP4DF		10.56	-0.31	-0.49	10.60	-0.41	-0.70	MC
6MLTCA		11.43	0.55	0.87	11.72	0.71	1.21	MC
77TLU3	*	12.78	1.91	3.00	12.84	1.83	3.12	MC
92TUYB		10.69	-0.18	-0.29	11.15	0.14	0.24	ME
A4BLA4		10.58	-0.30	-0.47	10.81	-0.20	-0.34	MR
AHEWU6		11.35	0.48	0.75	11.38	0.37	0.64	MC
BCMZRY		10.86	-0.02	-0.03	10.75	-0.26	-0.44	ME
CBM9D4		11.40	0.53	0.83	11.22	0.21	0.36	MC
ELXKHX		10.66	-0.21	-0.33	10.91	-0.10	-0.17	MC
F6AKBY		10.76	-0.12	-0.18	10.72	-0.29	-0.49	MR
GE9UVT		11.02	0.15	0.23	11.00	-0.01	-0.02	MC
KMG9QU		10.72	-0.15	-0.24	10.74	-0.27	-0.47	MM
NL63GL		10.65	-0.22	-0.35	10.87	-0.14	-0.23	MC
PDUZVK		9.74	-1.13	-1.78	10.03	-0.98	-1.67	MM
V9G98E		10.91	0.04	0.06	11.27	0.26	0.44	MR
VQVRTK		10.66	-0.21	-0.33	11.04	0.03	0.06	ME
X6QVAF		9.89	-0.99	-1.55	10.03	-0.98	-1.66	MD
XU4WJB		11.58	0.71	1.12	11.27	0.26	0.44	MC
YWBA2C		10.08	-0.80	-1.25	10.33	-0.68	-1.15	ME
YZAMLG		11.31	0.43	0.68	11.15	0.14	0.24	MC
ZHQ6DF		10.71	-0.16	-0.25	10.93	-0.08	-0.14	MC

Summary Statistics

	Sample W45-W46	Sample W47-W48
Grand Means	10.873 lbf.in	11.009 lbf.in
Stnd Dev Btwn Labs	0.636 lbf.in	0.587 lbf.in

Statistics based on 22 of 22 reporting participants

Summary Statistics in SI Units

	Sample W45-W46	Sample W47-W48
Grand Means	12.285 dN.m	12.438 dN.m
Stnd Dev Btwn Labs	0.719 dN.m	0.663 dN.m

Statistics based on 22 of 22 reporting participants

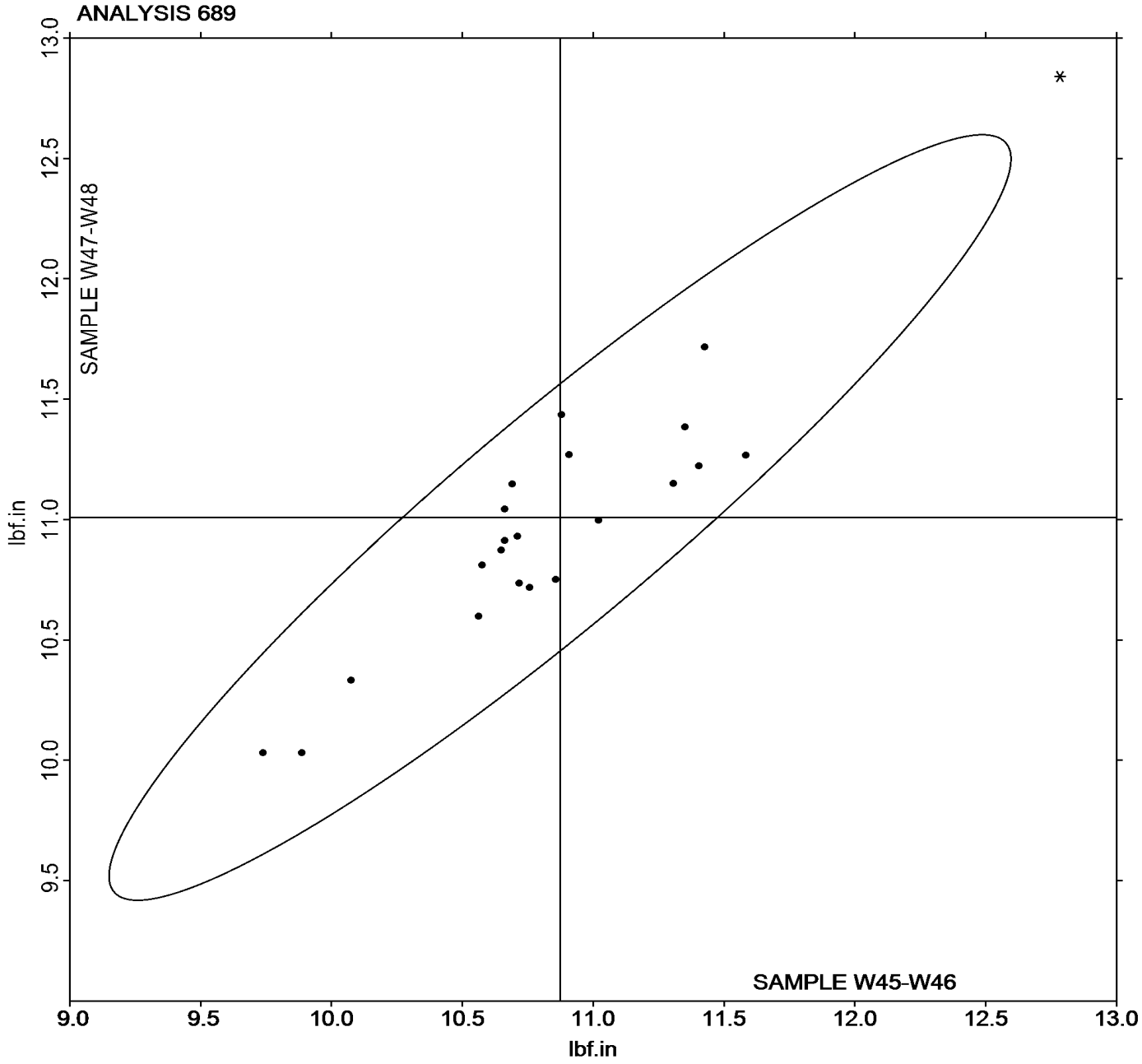
Samples W45-W46: EPDM Compound & W47-W48: EPDM Compound

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		

Grand Mean Sample **W45-W46** = 10.873 lbf.in

Grand Mean Sample **W47-W48** = 11.009 lbf.in



WebCode	Data Flag	Sample E41-E42 Lab Mean	Diff from Grand Mean	CPV	Sample E43-E44 Lab Mean	Diff from Grand Mean	CPV	Instr Code
6MLTCA		780.4	38.2	0.87	677.7	26.3	0.39	RP
92TUYB		752.2	10.0	0.23	701.4	49.9	0.74	XX
ZHQ6DF		694.1	-48.1	-1.09	575.2	-76.2	-1.14	RP

Summary Statistics

	Sample E41-E42	Sample E43-E44
Grand Means	742.23 kPa	651.45 kPa
Stnd Dev Btwn Labs	44.01 kPa	67.06 kPa

Statistics based on 3 of 3 reporting participants

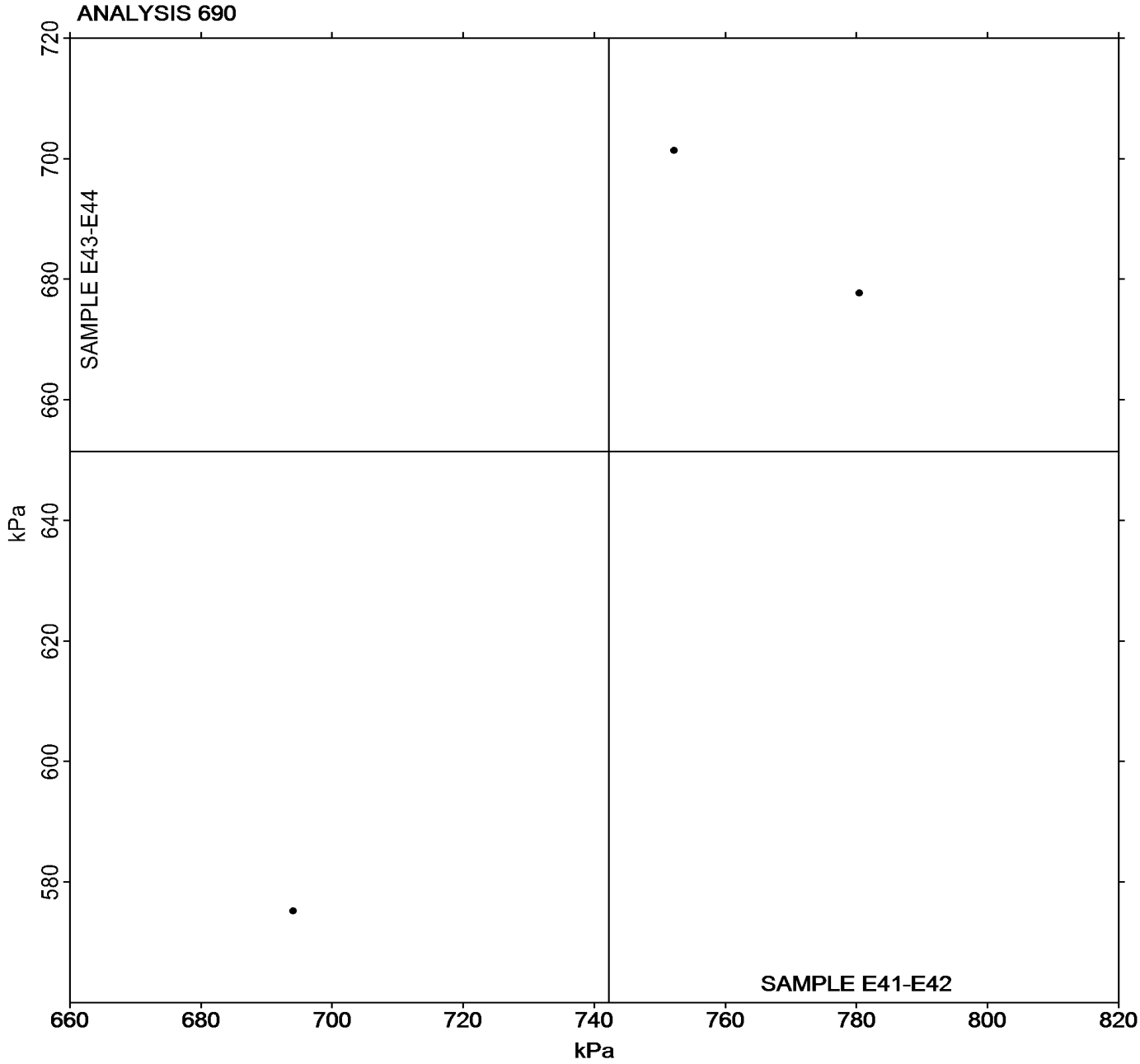
Samples E41-E42: EPDM Compound & E43-E44: EPDM Compound

Key to Instrument Codes Reported by Participants

RP	RPA 2000	XX	Instrument model not specified by lab

Grand Mean Sample **E41-E42** = 742.23 kPa

Grand Mean Sample **E43-E44** = 651.45 kPa



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

WebCode	Data Flag	Sample E41-E42 Lab Mean	Diff from Grand Mean	CPV	Sample E43-E44 Lab Mean	Diff from Grand Mean	CPV	Instr Code
6MLTCA		214.1	-3.7	-0.19	211.2	-4.6	-0.24	RP
92TUYB		239.5	21.7	1.08	236.7	20.9	1.10	XX
ZHQ6DF		199.8	-18.0	-0.89	199.6	-16.3	-0.86	RP

Summary Statistics

	E41-E42	E43-E44
Grand Means	217.83 kPa	215.81 kPa
Stnd Dev Btwn Labs	20.10 kPa	19.01 kPa

Statistics based on 3 of 3 reporting participants

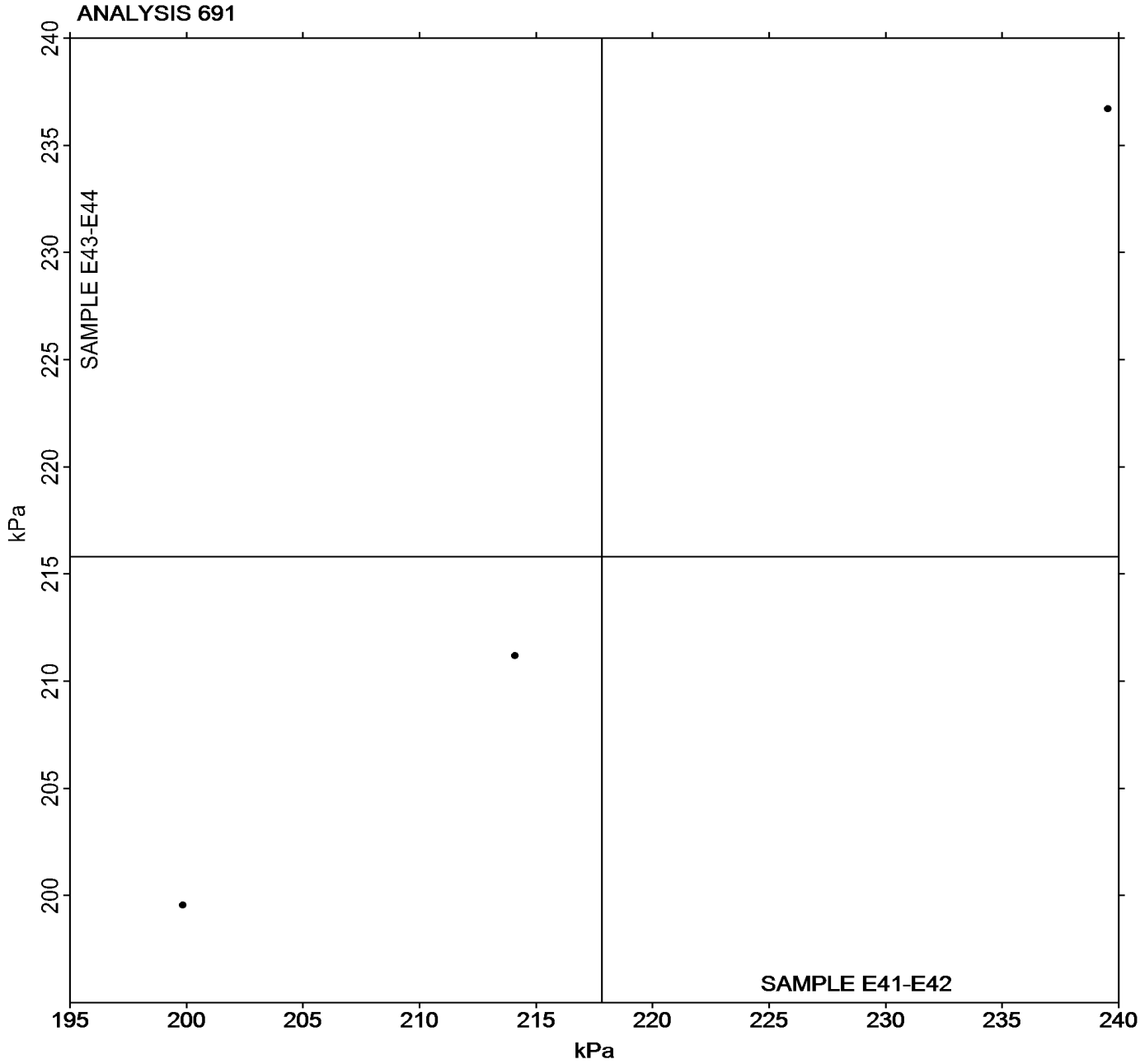
Samples E41-E42: EPDM Compound & E43-E44: EPDM Compound

Key to Instrument Codes Reported by Participants

RP	RPA 2000	XX	Instrument model not specified by lab

Grand Mean Sample **E41-E42** = 217.83 kPa

Grand Mean Sample **E43-E44** = 215.81 kPa



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

WebCode	Data Flag	Sample E41-E42 Lab Mean	Diff from Grand Mean	CPV	Sample E43-E44 Lab Mean	Diff from Grand Mean	CPV	Instr Code
6MLTCA		201.7	41.4	1.12	148.4	26.8	1.07	RP
92TUYB		130.8	-29.5	-0.80	117.8	-3.8	-0.15	XX
ZHQ6DF		148.3	-12.0	-0.32	98.7	-23.0	-0.92	RP

Summary Statistics

	E41-E42	E43-E44
Grand Means	160.24 kPa	121.65 kPa
Stnd Dev Btwn Labs	36.93 kPa	25.08 kPa

Statistics based on 3 of 3 reporting participants

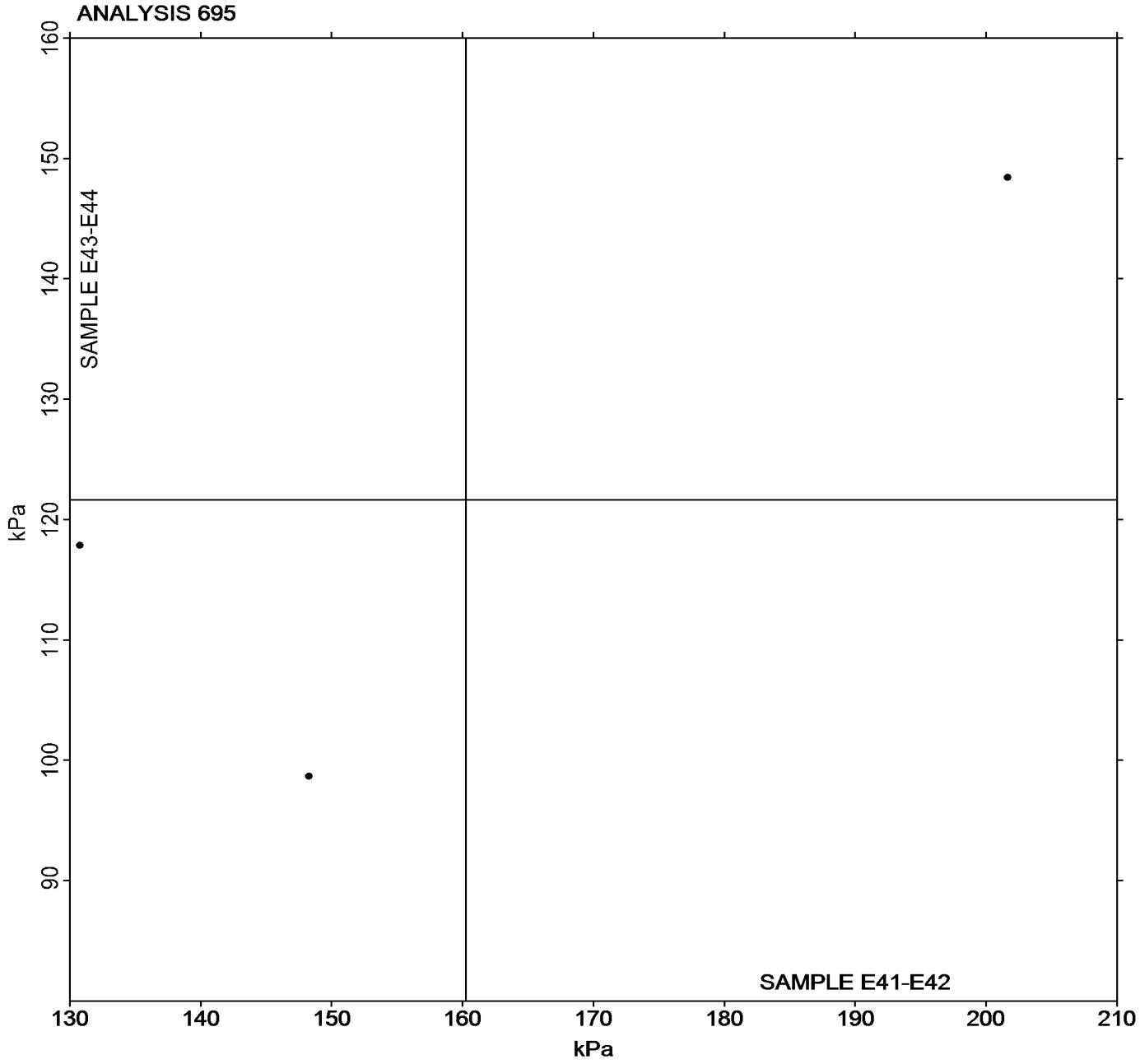
Samples E41-E42: EPDM Compound & E43-E44: EPDM Compound

Key to Instrument Codes Reported by Participants

RP	RPA 2000	XX	Instrument model not specified by lab

Grand Mean Sample **E41-E42** = 160.24 kPa

Grand Mean Sample **E43-E44** = 121.65 kPa



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

Rubber Interlaboratory Testing Program

Analysis 696

RPA Rheological Properties: Part B - G" at 1.0Hz (kPa)

WebCode	Data Flag	Sample E41-E42 Lab Mean	Sample E41-E42 Diff from Grand Mean	Sample E41-E42 CPV	Sample E43-E44 Lab Mean	Sample E43-E44 Diff from Grand Mean	Sample E43-E44 CPV	Instr Code
6MLTCA		123.0	12.2	1.15	103.33	5.98	0.63	RP
92TUYB		106.0	-4.8	-0.45	102.37	5.03	0.53	XX
ZHQ6DF		103.3	-7.5	-0.70	86.33	-11.01	-1.15	RP

Summary Statistics

	E41-E42	E43-E44
Grand Means	110.75 kPa	97.343 kPa
Stnd Dev Btwn Labs	10.66 kPa	9.547 kPa

Statistics based on 3 of 3 reporting participants

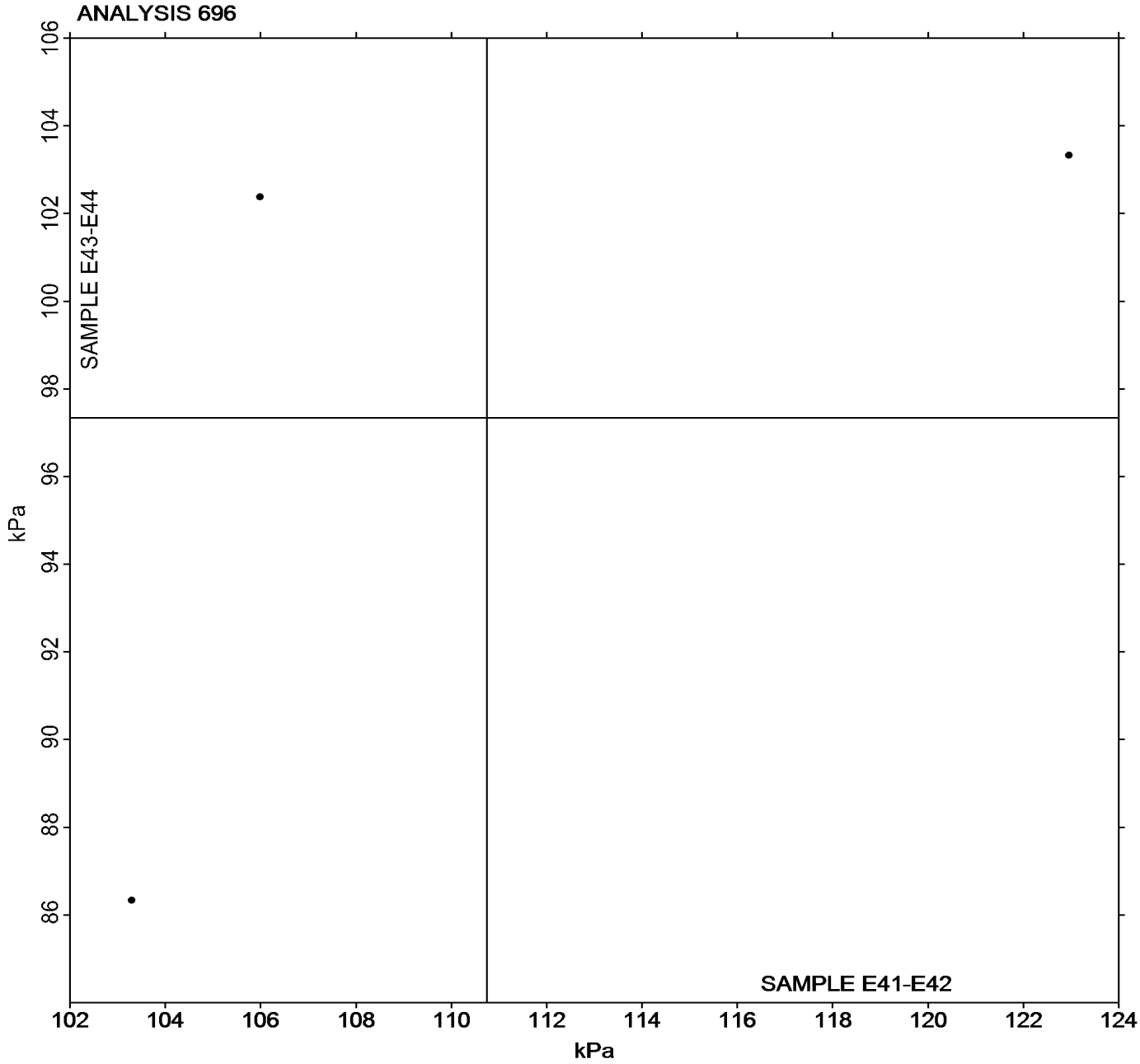
Samples E41-E42: EPDM Compound & E43-E44: EPDM Compound

Key to Instrument Codes Reported by Participants

RP	RPA 2000	XX	Instrument model not specified by lab

Grand Mean Sample **E41-E42** = 110.75 kPa

Grand Mean Sample **E43-E44** = 97.343 kPa



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

-End of Report-