Collaborative Testing Services, Inc.

Fasteners & Metals Interlaboratory Testing Program

Summary Report Cycle 126, 2nd Qtr 2019

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ABOUT THE FASTENERS & METALS PROGRAM

Collaborative Testing Services operates and maintains the program for Fasteners and Metals as part of a series of Proficiency and Interlaboratory Testing Programs offered by CTS in cooperation with various associations for a wide range of industries. Personnel from the National Institute of Standards and Technology (formerly the National Bureau of Standards), Industrial Fasteners Institute (IFI), and the Naval Shipyard Laboratories provide technical guidance and advice to this program.

The purpose of the program is to give participating laboratories a means to compare periodically the level and uniformity of their testing with that of other laboratories in the industry. It also provides a realistic assessment of the state of fasteners and metals testing proficiency.

In each report, there is a summary of the statistics for the analysis and a graphical representation of the data for each test. Also shown are notes concerning specific laboratory results, as well as significant findings related to instrument types or other testing variations. Refer to the 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, color, and wine 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 50 countries, currently participate in the CTS programs.
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Key for Fasteners & Metals Program Web Summary Report

WebCode - Assigned laboratory identification number(temporary)used to ensure lab confidentiality while permitting a lab to locate its data in the report published on the CTS website.

Lab Mean - 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.

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 (CPV) - 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. CPV = (LAB MEAN - GRAND MEAN)/ BETWEEN-LAB STANDARD DEVIATION. 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).

Instr. Code - 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 Flags

Data Flag Type	Statistically Included/Excluded	ACTION REQUIRED
*	INCLUDED	CAUTION - review testing procedure and monitor future results. Results fall outside the drawn 95% ellipse but within a 99% ellipse that is calculated but not drawn. Labs flagged with an * do not typically receive a specific note regarding the flag. If this error is repeated in future rounds, however, a lab may need to stop and review its testing procedures. The initial data flag is not cause for alarm.
X	EXCLUDED	STOP - immediate review of data and/or testing procedure is required (all tests exept Chemical Analyses). Results fall outside the 99% ellipse. See the specific note following the data for more information on why the data are excluded. For Chemical Analyses see an additional Memo.
M	EXCLUDED	PROCEED - lab was unable to report data for at least one sample. However, a lab receiving two or more M flags for a test may need to stop and review its testing procedures.

Graph - For each laboratory, the Lab Mean for the second sample (y-axis) is plotted against the Lab Mean for the first sample (x-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 included 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. Labs not receiving a data flag appear as points on the plot.

		Sample X59			Sample X60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2THWUG		142.91	-1.87	-1.01	167.69	1.56	0.71
3DJ8EA		144.83	0.05	0.03	164.23	-1.90	-0.87
4CVWNT	X	155.10	10.32	5.58	179.70	13.56	6.18
4EE9X8		142.84	-1.94	-1.05	165.53	-0.61	-0.28
4YWKJ3		145.67	0.89	0.48	169.47	3.33	1.52
7UQ9AY		142.43	-2.35	-1.27	164.76	-1.37	-0.63
7UT27L		144.58	-0.20	-0.11	166.03	-0.11	-0.05
8KLEXL		147.10	2.32	1.25	170.20	4.06	1.85
9CA7Y6		143.42	-1.36	-0.74	163.42	-2.72	-1.24
9HNTEE		144.36	-0.42	-0.23	165.25	-0.89	-0.41
9JUA78		144.98	0.20	0.11	167.69	1.55	0.71
A3EMX2		145.23	0.45	0.24	164.67	-1.47	-0.67
BAE8VQ	*	147.55	2.77	1.50	172.60	6.46	2.94
BDU2CM		145.81	1.03	0.55	166.02	-0.12	-0.05
BLPY3W		143.23	-1.55	-0.84	163.53	-2.60	-1.19
BTRUGX		145.33	0.55	0.30	167.53	1.40	0.64
CB33V4		144.95	0.17	0.09	166.45	0.31	0.14
CGK4NE	X	148.58	3.80	2.05	174.95	8.82	4.02
ELDAQV		143.33	-1.45	-0.78	165.67	-0.47	-0.21
GULMUU		144.50	-0.28	-0.15	164.77	-1.37	-0.62
GWPNF2	X	11.19	-133.59	-72.20	12.89	-153.25	-69.85
H3XYF9		140.80	-3.99	-2.15	162.08	-4.05	-1.85
HB2EXZ		145.10	0.32	0.17	166.50	0.36	0.17
HMFB34		145.17	0.39	0.21	164.77	-1.37	-0.62
HW246E		144.43	-0.35	-0.19	165.33	-0.80	-0.37
HWH8TE	X	167.72	22.94	12.40	194.96	28.82	13.14
HYWXEP		145.42	0.64	0.35	164.82	-1.32	-0.60
JEYYKW		144.95	0.17	0.09	166.02	-0.12	-0.05
JKMBAD		142.07	-2.71	-1.47	164.23	-1.90	-0.87
K74GJT		146.67	1.89	1.02	168.33	2.20	1.00
KXTDEF		143.47	-1.31	-0.71	163.10	-3.04	-1.38
L73ZYR		146.77	1.99	1.07	165.50	-0.64	-0.29
LYWXC8	*	149.40	4.62	2.49	168.59	2.45	1.12
MU2TN2		145.63	0.85	0.46	167.07	0.93	0.42
N8MRTA		144.14	-0.64	-0.35	165.81	-0.33	-0.15
NJT9EX		144.33	-0.45	-0.24	164.67	-1.47	-0.67
NR8LJV		145.58	0.80	0.43	168.87	2.74	1.25
P6C6UV		141.94	-2.84	-1.53	163.27	-2.87	-1.31
P7LEK8	X	11.92	-132.86	-71.81	13.68	-152.46	-69.49
R2PBMK		143.60	-1.18	-0.64	165.93	-0.20	-0.09
T3HHPW		143.70	-1.08	-0.58	165.67	-0.47	-0.21
T8AP96		149.20	4.42	2.39	170.74	4.60	2.10
TVMGWA		144.33	-0.45	-0.24	165.37	-0.77	-0.35
UNDJE6		145.96	1.18	0.64	168.30	2.16	0.98
URC2BC		142.62	-2.16	-1.17	166.24	0.10	0.05
VGNXW6	*	149.39	4.61	2.49	169.43	3.29	1.50
VHEFEP		144.00	-0.78	-0.42	165.33	-0.80	-0.37

		Sample X59			Sample X60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
WK3FHY		144.75	-0.03	-0.02	167.47	1.33	0.61
WQN4RN		142.14	-2.64	-1.43	163.02	-3.11	-1.42
WQTRJM		143.77	-1.01	-0.55	162.60	-3.54	-1.61
XFN7LM		147.43	2.65	1.43	168.27	2.13	0.97
XHLHUK	X	149.92	5.13	2.78	175.12	8.99	4.10
XLNCWV		145.09	0.31	0.16	165.65	-0.48	-0.22
Y4J6HU	X	11.25	-133.53	-72.17	12.93	-153.21	-69.83
Y7VB8P		143.94	-0.84	-0.45	165.63	-0.51	-0.23
YCMFY8		144.10	-0.68	-0.37	165.08	-1.05	-0.48
ZLE2BA		146.12	1.34	0.73	167.68	1.54	0.70

Summary Statistics

	Sample X59		Sample X60	
Grand Means	144.78	ksi	166.14	ksi
Stnd Dev Btwn Labs	1.85	ksi	2.19	ksi

Samples X59, X60 : 3/8-16 x 2 1/4, 3/8-16 x 2 1/4

Statistics based on 50 of 57 reporting participants

Comments on Assigned Data Flags for Test #115

4CVWNT (X) - Data for both samples are high.

CGK4NE (X) - Data for sample X60 are high.

GWPNF2 (X) - Extreme data.

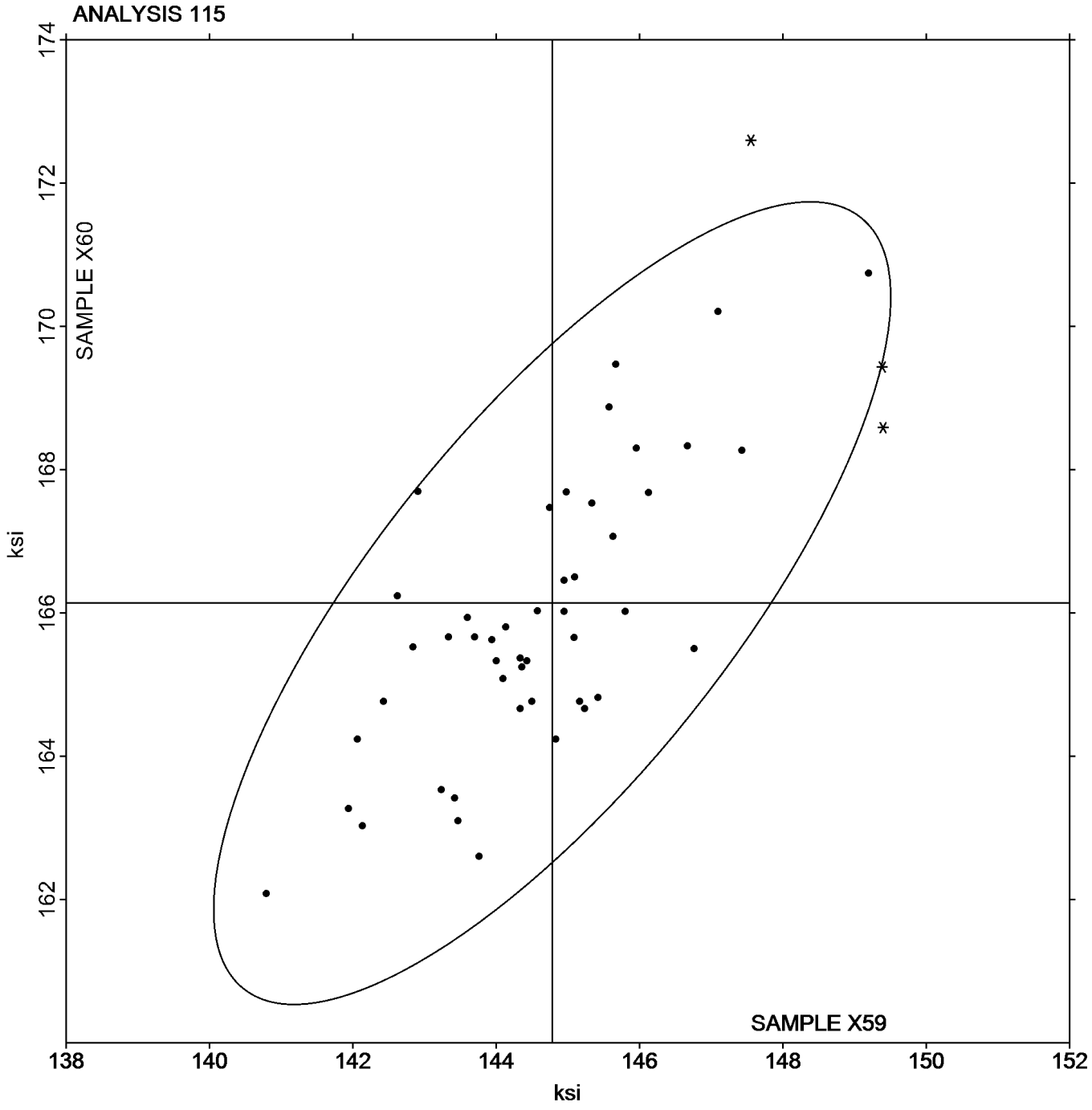
HWH8TE (X) - Data for both samples are high. Inconsistent within the determinations of sample X60.

P7LEK8 (X) - Extreme data.

XHLHUK (X) - Data for both samples are high.

Y4J6HU (X) - Extreme data.

SAMPLE X59	SAMPLE X60
144.78 ksi	166.14 ksi



		Sample Q59			Sample Q60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2DZMQJ	*	147.67	2.88	1.59	172.67	6.42	2.91
2THWUG		144.15	-0.64	-0.35	166.11	-0.13	-0.06
3DJ8EA		142.90	-1.89	-1.05	163.80	-2.44	-1.11
4CVWNT	X	155.67	10.88	6.02	179.03	12.79	5.79
4EE9X8		141.37	-3.42	-1.90	163.01	-3.24	-1.47
4R3ANX		145.90	1.11	0.61	167.07	0.82	0.37
6T78HE		143.65	-1.14	-0.63	166.74	0.50	0.23
7CYREP		146.71	1.92	1.07	168.77	2.53	1.14
7LNFCD		144.17	-0.62	-0.35	164.87	-1.38	-0.62
7UQ9AY		141.85	-2.94	-1.63	163.02	-3.22	-1.46
7UT27L		145.16	0.37	0.21	167.04	0.80	0.36
8BVX4B		142.87	-1.92	-1.07	165.27	-0.98	-0.44
9CA7Y6		143.37	-1.42	-0.79	163.59	-2.65	-1.20
9FKWVC		146.77	1.98	1.09	165.93	-0.31	-0.14
9JUA78	*	144.49	-0.30	-0.17	169.58	3.34	1.51
9YYAQM		140.90	-3.89	-2.16	162.64	-3.60	-1.63
B7D7T9	X	103.51	-41.28	-22.86	119.01	-47.23	-21.40
BDU2CM		144.95	0.16	0.09	166.02	-0.22	-0.10
BLPY3W		144.00	-0.79	-0.44	163.30	-2.94	-1.33
BTRUGX		145.37	0.58	0.32	168.63	2.39	1.08
CGK4NE	*	149.29	4.50	2.49	171.12	4.88	2.21
D8KH8E	*	150.14	5.35	2.96	169.99	3.75	1.70
DU7U8G		146.06	1.27	0.71	166.95	0.71	0.32
ELDAQV		143.67	-1.12	-0.62	165.67	-0.58	-0.26
FHBQ79		145.60	0.81	0.45	165.03	-1.21	-0.55
FLELPB		144.32	-0.47	-0.26	165.61	-0.63	-0.29
GDN744		141.33	-3.46	-1.91	163.00	-3.24	-1.47
GKDX26		145.29	0.50	0.28	166.16	-0.09	-0.04
GULMUU		144.50	-0.29	-0.16	166.50	0.26	0.12
HW246E		144.37	-0.42	-0.23	164.93	-1.31	-0.59
HWH8TE	X	168.68	23.89	13.23	197.31	31.06	14.07
HYWXEP		145.63	0.84	0.47	165.81	-0.44	-0.20
J7668Y		148.68	3.89	2.16	170.15	3.91	1.77
JKMBAD		144.67	-0.12	-0.07	166.40	0.16	0.07
JKQW3F		143.47	-1.32	-0.73	165.77	-0.48	-0.22
JYJP9L		146.11	1.32	0.73	167.15	0.91	0.41
K9AWYC		143.80	-0.99	-0.55	165.20	-1.04	-0.47
KKZVG2		144.52	-0.27	-0.15	164.95	-1.30	-0.59
KXTDEF		144.03	-0.76	-0.42	164.53	-1.71	-0.77
LBJEWX		144.94	0.15	0.08	166.60	0.36	0.16
LQH8QF		144.32	-0.47	-0.26	167.73	1.48	0.67
LRDU66	X	151.00	6.21	3.44	175.00	8.76	3.97
LX3AXH		146.52	1.73	0.96	168.58	2.33	1.06
MU2TN2		147.27	2.48	1.37	167.17	0.92	0.42
N8MRTA		144.76	-0.03	-0.01	164.77	-1.47	-0.67
N8ZU9A	X	144.81	0.02	0.01	160.03	-6.21	-2.81
NJT9EX		143.07	-1.72	-0.95	165.77	-0.48	-0.22

WebCode	Data Flag	Sample Q59 Lab Mean	Sample Q59 Diff. from Grand Mean	Sample Q59 CPV	Sample Q60 Lab Mean	Sample Q60 Diff. from Grand Mean	Sample Q60 CPV
NR8LJV		146.27	1.48	0.82	167.62	1.37	0.62
P6C6UV		142.09	-2.70	-1.50	162.93	-3.31	-1.50
P6VTCP		144.50	-0.29	-0.16	165.63	-0.61	-0.28
PWKQQP		144.53	-0.26	-0.14	166.60	0.36	0.16
R2PBMK		145.03	0.24	0.13	165.53	-0.71	-0.32
T3D3CW		145.67	0.88	0.49	168.33	2.09	0.95
T8AP96		147.47	2.68	1.48	170.66	4.42	2.00
TFWF24		142.82	-1.97	-1.09	167.18	0.94	0.43
TVMGWA		144.87	0.08	0.04	165.63	-0.61	-0.28
UNDJE6		146.49	1.70	0.94	165.66	-0.58	-0.26
URC2BC		144.09	-0.70	-0.39	165.72	-0.52	-0.24
VD6Y62		145.03	0.24	0.14	168.79	2.55	1.15
VGNXW6	X	152.15	7.36	4.08	175.33	9.08	4.11
WK3FHY		144.02	-0.77	-0.43	165.86	-0.38	-0.17
WQN4RN		141.75	-3.04	-1.68	162.83	-3.41	-1.55
WQTRJM		145.37	0.58	0.32	165.03	-1.21	-0.55
WYXDDV	X	150.36	5.57	3.08	174.75	8.51	3.85
X66Q2T		143.53	-1.26	-0.70	165.70	-0.54	-0.25
XHLHUK	*	145.92	1.13	0.63	171.43	5.18	2.35
XLNCWV		145.34	0.55	0.30	164.58	-1.66	-0.75
Y7VB8P		145.24	0.45	0.25	165.25	-0.99	-0.45
YCMFY8		145.22	0.43	0.24	165.50	-0.75	-0.34
YJ7NV3		143.20	-1.59	-0.88	164.07	-2.18	-0.99
ZLE2BA		145.51	0.72	0.40	165.36	-0.88	-0.40

Summary Statistics

	Sample Q59		Sample Q60	
Grand Means	144.79	ksi	166.24	ksi
Stnd Dev Btwn Labs	1.81	ksi	2.21	ksi

Samples Q59, Q60 : 3/8-16 x 2 1/4, 3/8-16 x 2 1/4

Statistics based on 64 of 71 reporting participants

Comments on Assigned Data Flags for Test #116

4CVWNT (X) - Data for both samples are high.

B7D7T9 (X) - Data for both samples are extremely low.

HWH8TE (X) - Data for both samples are very high. Inconsistent within the determinations of sample Q60.

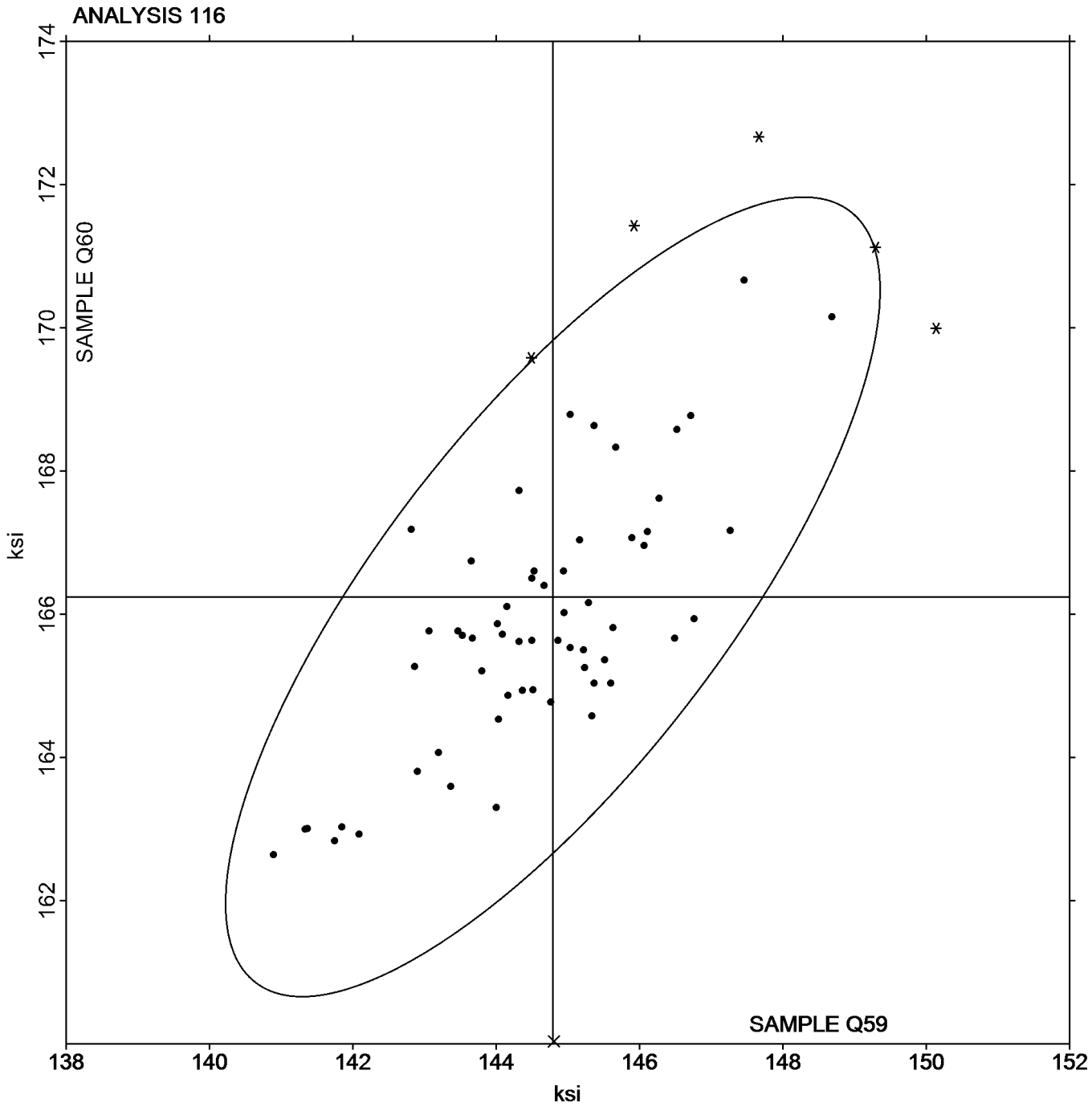
LRDU66 (X) - Data for both samples are high.

N8ZU9A (X) - Data for sample Q60 are low.

VGNXW6 (X) - Data for both samples are high.

WYXDDV (X) - Data for both samples are high.

SAMPLE Q59	SAMPLE Q60
144.79 ksi	166.24 ksi



		Sample E59			Sample E60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
27H8CN		60.47	0.01	0.02	55.18	-0.07	-0.15
2DUG7A		59.82	-0.64	-1.05	55.30	0.05	0.10
2JCFEQ		60.38	-0.08	-0.13	55.34	0.09	0.19
2KYB9H		60.75	0.29	0.48	54.81	-0.44	-0.91
2UD37N		61.26	0.80	1.31	56.00	0.75	1.54
2WYLBZ		60.40	-0.06	-0.10	55.20	-0.05	-0.10
33FGRU		60.90	0.44	0.72	55.08	-0.17	-0.35
38P29Y		60.20	-0.26	-0.43	54.90	-0.35	-0.72
3W27NE	*	58.74	-1.72	-2.83	53.92	-1.33	-2.73
46PCZC		60.90	0.44	0.72	55.44	0.19	0.39
49XDQ2		59.30	-1.16	-1.91	54.40	-0.85	-1.74
4EE9X8		60.80	0.34	0.56	55.66	0.41	0.84
4K6HAQ		60.40	-0.06	-0.10	55.00	-0.25	-0.51
4Q4AA8		61.24	0.78	1.28	55.64	0.39	0.80
4RXV3X		61.00	0.54	0.89	55.30	0.05	0.10
7EPTTC		60.46	0.00	0.00	55.06	-0.19	-0.39
7HXRJD		60.38	-0.08	-0.13	55.24	-0.01	-0.02
7KBNGB	*	60.52	0.06	0.09	54.40	-0.85	-1.73
7UT27L		61.76	1.30	2.14	56.34	1.09	2.24
7XR8QJ		61.18	0.72	1.18	55.56	0.31	0.64
7YHPDC	X	58.80	-1.66	-2.73	53.60	-1.65	-3.38
8BVX4B		60.72	0.26	0.43	55.40	0.15	0.31
8DF46T		60.60	0.14	0.23	55.32	0.07	0.15
8DGX4R		60.16	-0.30	-0.49	55.30	0.05	0.10
8DXVDH		60.46	0.00	0.00	55.42	0.17	0.35
8Z472M		61.10	0.64	1.05	55.86	0.61	1.25
998DYE		61.12	0.66	1.08	55.76	0.51	1.05
9PALTY		60.26	-0.20	-0.33	54.70	-0.55	-1.13
9QHX9F		59.68	-0.78	-1.29	54.37	-0.88	-1.81
9XQN4F		59.52	-0.94	-1.55	54.66	-0.59	-1.21
AMNM6G		61.22	0.76	1.25	56.08	0.83	1.71
BAAH6Q		60.52	0.06	0.10	55.34	0.09	0.19
BAE8VQ		59.98	-0.48	-0.79	54.94	-0.31	-0.63
BDDLJF		60.44	-0.02	-0.03	55.22	-0.03	-0.06
BDU2CM		61.00	0.54	0.89	55.52	0.27	0.56
BKGMMF	*	60.76	0.30	0.49	54.60	-0.65	-1.33
BKXNNW	X	61.36	0.90	1.48	54.82	-0.43	-0.88
BLPY3W		60.28	-0.18	-0.30	55.14	-0.11	-0.22
CB33V4		59.32	-1.14	-1.88	55.04	-0.21	-0.43
D8KH8E		60.92	0.46	0.76	55.64	0.39	0.80
DLA4HZ		60.60	0.14	0.23	55.16	-0.09	-0.18
DREX3V		61.24	0.78	1.28	55.98	0.73	1.50
DV83LF		60.20	-0.26	-0.43	55.00	-0.25	-0.51
EH9EEX		60.44	-0.02	-0.03	55.74	0.49	1.01
FCETVA		60.34	-0.12	-0.20	55.64	0.39	0.80
FECDK4		61.04	0.58	0.95	55.60	0.35	0.72
FGPZH9		60.44	-0.02	-0.03	54.90	-0.35	-0.72

		Sample E59			Sample E60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
FHBQ79		61.00	0.54	0.89	55.10	-0.15	-0.31
FKQZH6		59.82	-0.64	-1.05	55.08	-0.17	-0.35
FQHBR4		59.88	-0.58	-0.96	55.16	-0.09	-0.18
GRC83J		61.14	0.68	1.12	55.90	0.65	1.34
GULMUU		61.01	0.55	0.90	56.03	0.78	1.60
GWZZQ4		60.60	0.14	0.23	55.20	-0.05	-0.10
H7F4JV		60.36	-0.10	-0.17	55.36	0.11	0.23
HPMT2Y		59.32	-1.14	-1.88	54.50	-0.75	-1.54
HU34E4		60.62	0.16	0.26	55.32	0.07	0.15
HWHAFX		60.46	0.00	0.00	54.82	-0.43	-0.88
JEWZZF		60.26	-0.20	-0.33	55.04	-0.21	-0.43
JKMBAD		60.68	0.22	0.36	55.52	0.27	0.56
JKQW3F		60.82	0.36	0.59	55.80	0.55	1.13
K6MVMP		60.16	-0.30	-0.49	54.84	-0.41	-0.84
K74GJT		60.58	0.12	0.20	55.42	0.17	0.35
KFJ4ZZ		61.24	0.78	1.28	55.50	0.25	0.51
KFXLRK		60.42	-0.04	-0.07	55.06	-0.19	-0.39
KJYMRG		60.10	-0.36	-0.59	55.48	0.23	0.47
LBJEWX	X	57.54	-2.92	-4.80	53.76	-1.49	-3.06
LLMFJ4		60.00	-0.46	-0.76	54.48	-0.77	-1.58
LTRNBD		60.86	0.40	0.66	55.48	0.23	0.47
MKYK2P		60.42	-0.04	-0.07	55.70	0.45	0.93
NJBAB8		60.10	-0.36	-0.59	55.10	-0.15	-0.31
NPVMU8		60.86	0.40	0.66	55.44	0.19	0.39
NR8LJV		59.82	-0.64	-1.05	54.62	-0.63	-1.29
P3L4P8		60.16	-0.30	-0.49	55.16	-0.09	-0.18
P6VTCP		60.94	0.48	0.79	55.34	0.09	0.19
P7LEK8		60.14	-0.32	-0.53	55.28	0.03	0.06
P7T478		60.06	-0.40	-0.66	54.92	-0.33	-0.68
PAFQ7X		60.81	0.35	0.57	55.25	0.00	0.00
PWKQQP		60.22	-0.24	-0.40	55.34	0.09	0.19
PX6C87	*	58.80	-1.66	-2.73	54.00	-1.25	-2.56
R7NMXB		60.24	-0.22	-0.36	55.08	-0.17	-0.35
RFYLAY		60.00	-0.46	-0.76	55.00	-0.25	-0.51
RPH86V		60.98	0.52	0.85	55.40	0.15	0.31
T3D3CW		60.22	-0.24	-0.40	55.82	0.57	1.17
TDRQ42		61.00	0.54	0.89	55.24	-0.01	-0.02
U3KHNM		61.60	1.14	1.87	56.20	0.95	1.95
UCDGQU		61.00	0.54	0.89	55.28	0.03	0.06
UD7EWF		60.00	-0.46	-0.76	55.00	-0.25	-0.51
UR3UM9		60.42	-0.04	-0.07	55.46	0.21	0.43
URC2BC		61.64	1.18	1.94	55.96	0.71	1.46
UWVZCW		60.76	0.30	0.49	55.52	0.27	0.56
VBU2RJ	X	58.50	-1.96	-3.23	53.40	-1.85	-3.79
VBXN7C		60.60	0.14	0.23	55.60	0.35	0.72
VHEFEP		60.62	0.16	0.26	55.50	0.25	0.51
VHJ46N		60.30	-0.16	-0.26	54.78	-0.47	-0.96

WebCode	Data Flag	Sample E59 Lab Mean	Sample E59 Diff. from Grand Mean	Sample E59 CPV	Sample E60 Lab Mean	Sample E60 Diff. from Grand Mean	Sample E60 CPV
VLJCAY		60.72	0.26	0.43	55.64	0.39	0.80
W6FYTT		61.28	0.82	1.35	55.84	0.59	1.21
W7MGBD		61.48	1.02	1.68	56.28	1.03	2.12
W8CQHT		59.10	-1.36	-2.24	54.30	-0.95	-1.95
WDED4U		60.82	0.36	0.59	55.68	0.43	0.88
WFKZCR		61.48	1.02	1.68	55.34	0.09	0.19
WRLQP9		60.02	-0.44	-0.73	54.40	-0.85	-1.74
WWP8RU		59.75	-0.71	-1.18	55.41	0.16	0.32
WWWV6E		61.14	0.68	1.12	55.78	0.53	1.09
XK8246		60.54	0.08	0.13	55.60	0.35	0.72
XPAATL	X	59.02	-1.44	-2.37	55.04	-0.21	-0.43
XYQUJP		60.50	0.04	0.06	55.46	0.21	0.43
XZVE38		61.24	0.78	1.28	55.60	0.35	0.72
Y32GG2		60.54	0.08	0.13	55.30	0.05	0.10
Y4J6HU	*	58.80	-1.66	-2.73	54.20	-1.05	-2.15
Y6HBXV		60.16	-0.30	-0.49	54.60	-0.65	-1.33
YAXETJ		59.40	-1.06	-1.74	54.86	-0.39	-0.80
YCCH32		60.51	0.05	0.09	56.03	0.78	1.60
YDCP7N		60.98	0.52	0.85	55.56	0.31	0.64
YFMTTB		59.90	-0.56	-0.92	54.44	-0.81	-1.66
YLLDJM		59.66	-0.80	-1.32	55.18	-0.07	-0.14
Z3NT8M		60.62	0.16	0.26	55.06	-0.19	-0.39
ZJQRVG		60.74	0.28	0.46	55.64	0.39	0.80
ZKJGHH		59.44	-1.02	-1.68	54.96	-0.29	-0.59
ZND4HT		60.22	-0.24	-0.40	55.04	-0.21	-0.43
ZVRH8W		59.68	-0.78	-1.28	54.28	-0.97	-1.99

Summary Statistics

	Sample E59		Sample E60	
Grand Means	60.46	HRC	55.25	HRC
Stnd Dev Btwn Labs	0.61	HRC	0.49	HRC

Samples E59, E60 : Steel, Steel

Statistics based on 115 of 120 reporting participants

Comments on Assigned Data Flags for Test #118

7YHPDC (X) - Data for sample E60 are low.

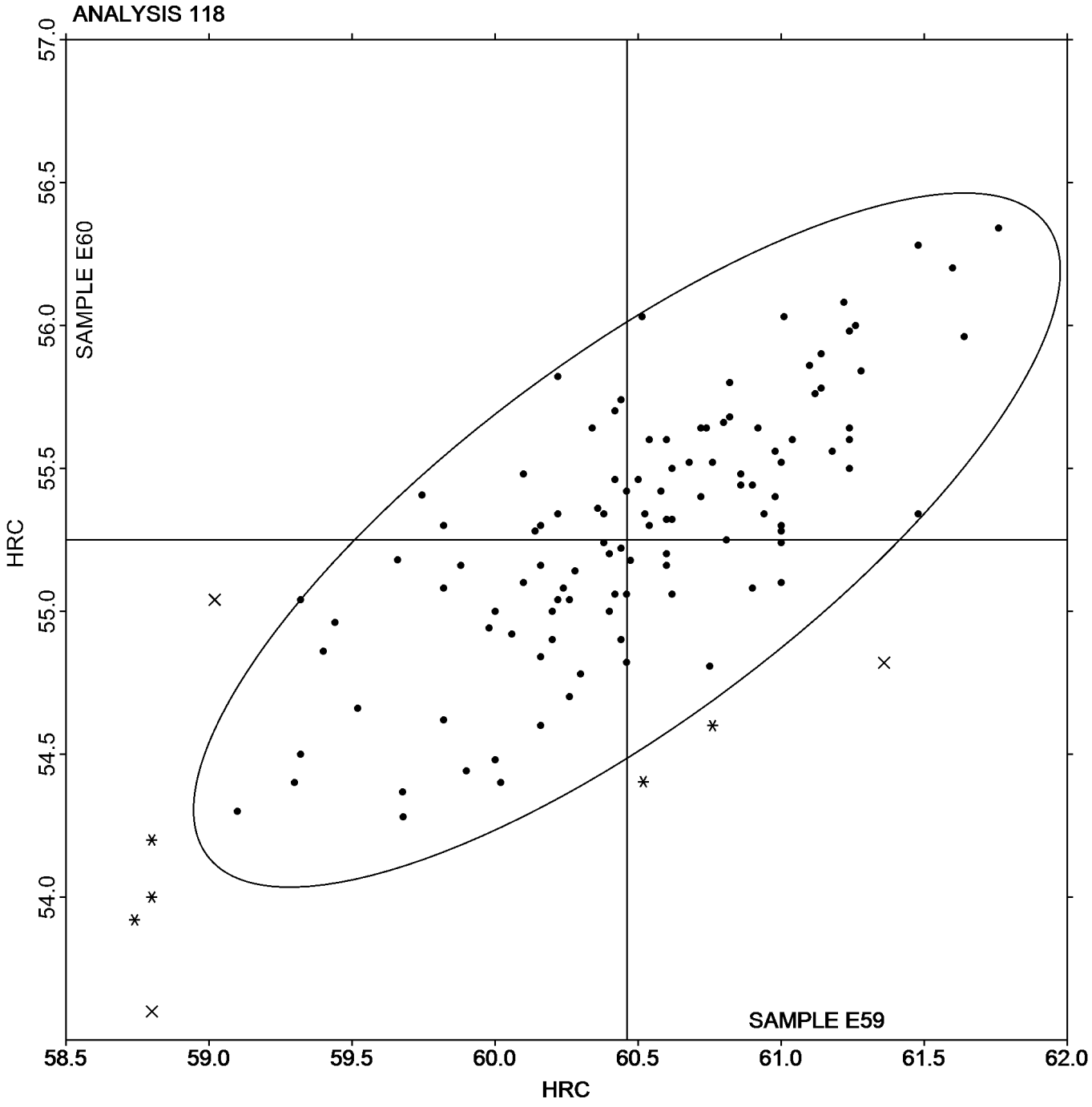
BKXNNW (X) - Inconsistent in testing between samples.

LBJEWX (X) - Data for both samples are low. Inconsistent within the determinations of sample E59.

VBU2RJ (X) - Data for both samples are low.

XPAATL (X) - Inconsistent in testing between samples.

SAMPLE E59	SAMPLE E60
60.46 HRC	55.25 HRC



		Sample E59			Sample E60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
3B89NL		60.40	-0.40	-1.06	55.30	-0.30	-0.84
42NF9W		61.64	0.84	2.24	56.14	0.54	1.54
4RB3VL		60.76	-0.04	-0.10	55.58	-0.02	-0.05
4YWKJ3	*	61.24	0.44	1.17	56.50	0.90	2.56
64NCKR		61.00	0.20	0.54	55.72	0.12	0.35
66JM6D		60.22	-0.58	-1.54	55.34	-0.26	-0.73
6HT3D4		60.78	-0.02	-0.05	55.50	-0.10	-0.27
6T78HE		61.14	0.34	0.91	55.66	0.06	0.18
6ZNZA6		60.80	0.00	0.00	55.82	0.22	0.63
7XR8QJ		61.20	0.40	1.07	55.68	0.08	0.24
7ZUD2J		61.02	0.22	0.59	55.72	0.12	0.35
8NP9WJ		60.86	0.06	0.17	55.49	-0.11	-0.30
8XJN6Z		60.94	0.14	0.38	55.62	0.02	0.07
9323QD		60.95	0.15	0.40	55.64	0.04	0.12
9FKWVC		60.46	-0.34	-0.90	55.00	-0.60	-1.69
9HNTEE		60.82	0.02	0.06	55.52	-0.08	-0.22
9JUA78		60.28	-0.52	-1.38	55.14	-0.46	-1.30
A946AR		61.10	0.30	0.80	55.82	0.22	0.63
AARADB		60.62	-0.18	-0.48	55.30	-0.30	-0.84
ABK8LH		60.78	-0.02	-0.05	55.64	0.04	0.12
AFRQLK		60.58	-0.22	-0.58	55.52	-0.08	-0.22
C2QLTP		60.00	-0.80	-2.13	55.20	-0.40	-1.13
C4EBW3		61.00	0.20	0.54	56.00	0.40	1.14
CJQPEZ		60.86	0.06	0.16	55.92	0.32	0.92
CPWGPJ		60.60	-0.20	-0.53	55.36	-0.24	-0.67
CQDBRD		60.96	0.16	0.43	55.74	0.14	0.41
DU7U8G	*	61.72	0.92	2.45	56.12	0.52	1.48
E46XLB	*	61.14	0.34	0.91	55.32	-0.28	-0.79
FYXD66		60.70	-0.10	-0.26	55.32	-0.28	-0.79
G2L8L7		60.80	0.00	0.00	56.00	0.40	1.14
GTHTBG		60.87	0.07	0.18	55.34	-0.25	-0.72
GWLMC8		60.74	-0.06	-0.16	55.48	-0.12	-0.33
HDQM6F		60.88	0.08	0.22	55.66	0.06	0.18
HMFB34		60.82	0.02	0.06	55.72	0.12	0.35
HW246E		61.30	0.50	1.33	56.08	0.48	1.37
KBEPQP		60.36	-0.44	-1.17	55.36	-0.24	-0.67
KH4ZHY		60.48	-0.32	-0.85	55.18	-0.42	-1.18
KXRKG8		61.32	0.52	1.39	56.30	0.70	2.00
LKZ9NU		60.68	-0.12	-0.32	55.78	0.18	0.52
N9PCV3		61.26	0.46	1.24	56.24	0.65	1.84
NJT9EX		60.48	-0.32	-0.85	55.54	-0.06	-0.16
NR8697		60.56	-0.24	-0.64	55.60	0.00	0.01
PHWTJY		61.22	0.42	1.12	55.90	0.30	0.86
PR7YVP		60.80	0.00	0.00	55.58	-0.02	-0.05
PTGZHN		61.28	0.48	1.28	56.20	0.60	1.71
Q3DWQW		60.20	-0.60	-1.60	55.14	-0.46	-1.30
Q3FKE3		61.20	0.40	1.07	55.93	0.33	0.95

WebCode	Data Flag	Sample E59 Lab Mean	Sample E59 Diff. from Grand Mean	Sample E59 CPV	Sample E60 Lab Mean	Sample E60 Diff. from Grand Mean	Sample E60 CPV
QLDD6E		60.94	0.14	0.38	55.24	-0.36	-1.01
QT6KCE		61.04	0.24	0.64	55.64	0.04	0.12
QTCL7T		60.90	0.10	0.26	55.64	0.05	0.13
R2QYBQ		59.90	-0.90	-2.39	55.00	-0.60	-1.69
RFRBQ6		61.04	0.24	0.64	55.60	0.00	0.01
RKFH23		60.24	-0.56	-1.49	55.24	-0.36	-1.01
RVBCXZ	*	60.30	-0.50	-1.33	54.70	-0.90	-2.55
T6NF9Y		60.58	-0.22	-0.58	55.52	-0.08	-0.22
T8AP96		61.04	0.24	0.64	55.88	0.28	0.80
TVMGWA		60.32	-0.48	-1.28	55.46	-0.14	-0.39
TYJ4GX		61.22	0.42	1.12	56.12	0.52	1.48
TZNT6F		60.96	0.16	0.43	55.42	-0.18	-0.50
ULLMQB	X	60.70	-0.10	-0.26	54.52	-1.08	-3.06
VJ8DKB		60.30	-0.50	-1.33	55.20	-0.40	-1.13
VPWPLY	X	55.88	-4.92	-13.10	61.14	5.54	15.73
VUTLXR		60.74	-0.06	-0.16	55.40	-0.20	-0.56
X66Q2T		60.40	-0.40	-1.06	55.38	-0.22	-0.62
X87XWQ		61.10	0.30	0.80	55.90	0.30	0.86
YQ3L8L	X	59.64	-1.16	-3.09	55.96	0.36	1.03
YZGBFH		60.88	0.08	0.22	55.60	0.00	0.01
ZT39ZG		60.10	-0.70	-1.86	54.90	-0.70	-1.98
ZTPKYP		60.80	0.00	0.00	55.86	0.26	0.75
ZWFMCG		60.92	0.12	0.32	55.62	0.02	0.07

Summary Statistics

	Sample E59		Sample E60	
Grand Means	60.80	HRC	55.60	HRC
Stnd Dev Btwn Labs	0.38	HRC	0.35	HRC

Samples E59, E60 : Steel, Steel

Statistics based on 67 of 70 reporting participants

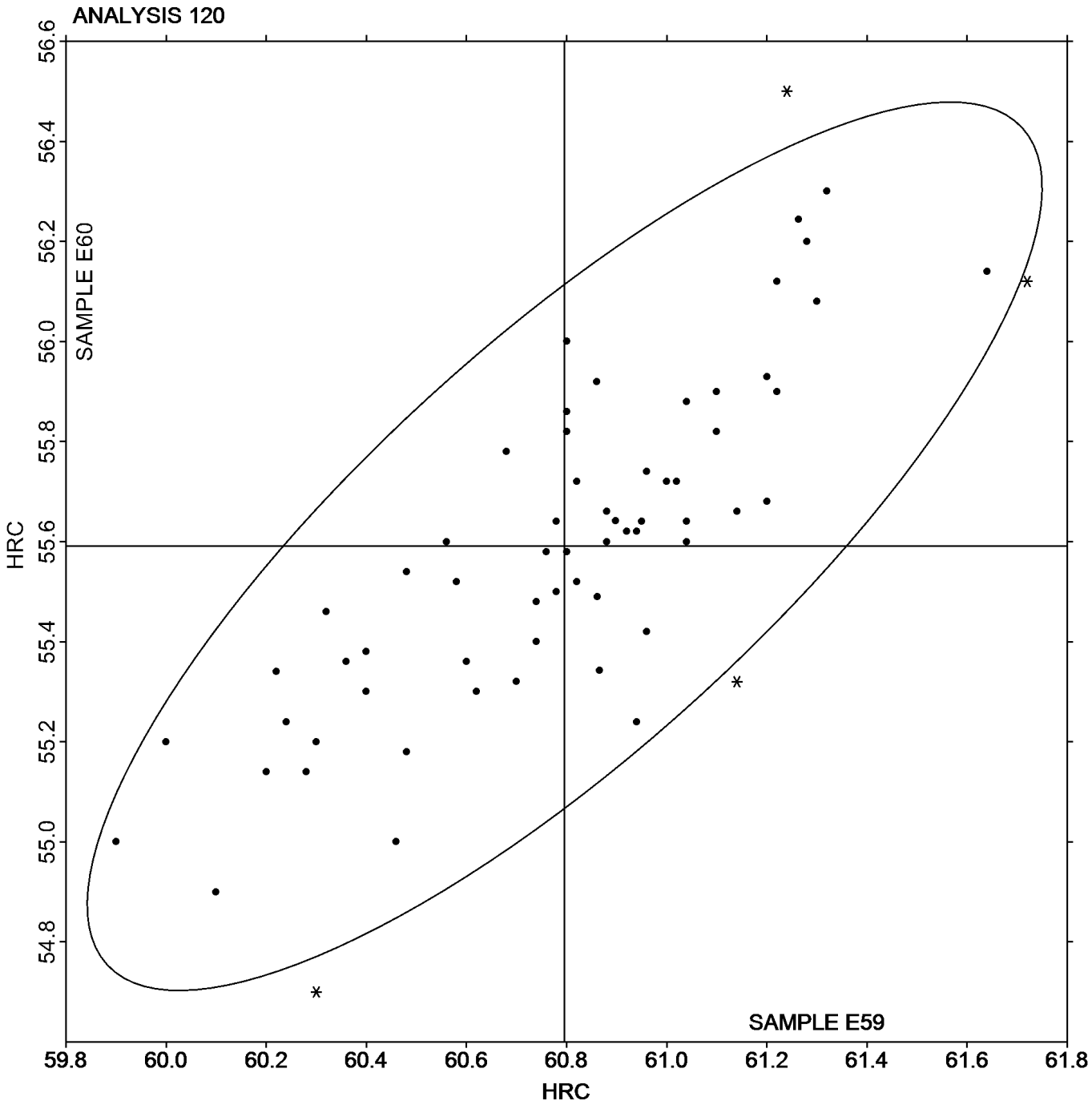
Comments on Assigned Data Flags for Test #120

ULLMQB (X) - Data for sample E60 are low. Inconsistent within the determinations of sample E60. Inconsistent within the determinations of sample E60.

VPWPLY (X) - Data appear to be transposed between samples.

YQ3L8L (X) - Data for sample E59 are low.

SAMPLE E59	SAMPLE E60
60.80 HRC	55.60 HRC



		Sample G59			Sample G60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
26FZEX		37.61	-0.02	-0.03	36.12	-0.90	-1.46
2E4MDL		37.76	0.13	0.21	37.14	0.13	0.20
2THWUG		38.45	0.82	1.27	37.53	0.51	0.84
2WGBFK		37.72	0.09	0.14	37.15	0.13	0.21
3DJ8EA		37.27	-0.36	-0.56	36.49	-0.53	-0.87
44PLLG		37.39	-0.24	-0.37	37.45	0.43	0.70
4EE9X8		37.66	0.03	0.05	37.34	0.33	0.53
7CYREP		36.78	-0.86	-1.32	36.73	-0.29	-0.47
7UQ9AY		36.60	-1.03	-1.59	36.81	-0.21	-0.34
82P94L		37.16	-0.47	-0.73	37.14	0.13	0.20
9CA7Y6		36.82	-0.81	-1.25	35.89	-1.13	-1.83
A3EMX2		38.17	0.54	0.83	38.21	1.19	1.94
B7D7T9		37.99	0.36	0.55	37.19	0.18	0.29
BE68RP		37.61	-0.02	-0.04	36.26	-0.76	-1.23
BJVH2N		37.17	-0.46	-0.71	36.37	-0.65	-1.06
BTRUGX		36.41	-1.22	-1.89	36.51	-0.51	-0.82
D8KH8E		38.51	0.88	1.35	38.06	1.04	1.70
DEWJK3		37.66	0.03	0.05	36.10	-0.92	-1.50
GDN744		38.38	0.74	1.15	37.75	0.73	1.19
GULMUU		38.81	1.18	1.82	38.00	0.98	1.60
GWPNF2	*	36.12	-1.51	-2.33	36.94	-0.08	-0.13
GZQJ8G		38.28	0.65	1.00	37.02	0.00	0.00
H3XYF9		38.14	0.51	0.79	36.77	-0.24	-0.40
HB2EXZ		38.78	1.15	1.78	37.57	0.55	0.90
HMFB34		38.96	1.33	2.06	37.93	0.91	1.48
HVKWWC		37.60	-0.03	-0.05	36.99	-0.03	-0.05
HWH8TE	*	37.46	-0.17	-0.27	35.47	-1.55	-2.53
HYWXEP		38.33	0.69	1.07	37.76	0.74	1.20
HZ8ZZN		38.69	1.06	1.64	37.23	0.21	0.35
J7668Y		38.14	0.51	0.79	37.83	0.81	1.33
JEYYKW		36.39	-1.24	-1.92	36.36	-0.66	-1.08
JKMBAD		36.98	-0.66	-1.01	36.78	-0.24	-0.39
JKQW3F		38.11	0.48	0.73	37.74	0.72	1.17
K74GJT	X	35.79	-1.84	-2.84	34.18	-2.84	-4.64
K9AWYC		37.61	-0.02	-0.03	36.21	-0.81	-1.32
KKZVG2		38.30	0.66	1.03	38.06	1.04	1.70
KML9VQ		37.05	-0.58	-0.90	37.11	0.09	0.15
KQKJRQ		38.38	0.74	1.15	37.47	0.45	0.73
KXTDEF		38.14	0.51	0.79	37.22	0.20	0.33
LQH8QF		37.38	-0.25	-0.38	36.89	-0.12	-0.20
LX3AXH		37.19	-0.44	-0.68	36.88	-0.14	-0.23
MU2TN2		37.36	-0.27	-0.42	36.46	-0.56	-0.92
N8MRTA		38.01	0.38	0.58	36.86	-0.16	-0.26
N8ZU9A		37.66	0.03	0.04	37.16	0.14	0.23
NR8LJV		37.43	-0.20	-0.31	37.17	0.15	0.25
P6C6UV		37.54	-0.09	-0.14	37.11	0.09	0.15
P6VTCP		37.87	0.24	0.37	36.82	-0.20	-0.33

		Sample G59			Sample G60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
PFVN7E		37.93	0.29	0.45	36.07	-0.95	-1.55
PWKQQP		38.34	0.71	1.09	36.99	-0.02	-0.04
Q6UF4N		37.69	0.06	0.10	37.20	0.18	0.30
QDX4QL		37.77	0.14	0.22	37.47	0.45	0.73
QRLYVX		37.23	-0.40	-0.62	36.59	-0.42	-0.69
QWZABM		36.71	-0.92	-1.43	36.13	-0.89	-1.46
R2PBMK		37.13	-0.50	-0.77	35.96	-1.06	-1.73
RHCMHZ		38.02	0.39	0.60	37.39	0.37	0.60
RPDYEW		37.08	-0.56	-0.86	36.80	-0.22	-0.36
T3HHPW		37.18	-0.46	-0.70	37.12	0.10	0.16
TDRQ42	*	36.04	-1.59	-2.45	35.64	-1.37	-2.24
TH9UBY		37.69	0.06	0.10	37.30	0.28	0.46
UNDJE6		38.50	0.86	1.33	38.17	1.16	1.88
URC2BC		36.86	-0.77	-1.20	36.56	-0.46	-0.75
VGNXW6		38.05	0.42	0.65	37.09	0.07	0.12
VKF8HV	X	35.84	-1.79	-2.77	34.91	-2.11	-3.43
VXCVQP		37.19	-0.44	-0.68	37.48	0.46	0.74
W7MGBD		37.76	0.13	0.19	37.29	0.28	0.45
WK3FHY		38.07	0.44	0.68	36.89	-0.13	-0.21
WQN4RN		37.42	-0.21	-0.33	37.09	0.08	0.12
WQTRJM		37.25	-0.38	-0.59	37.08	0.06	0.10
XFN7LM		37.68	0.04	0.07	36.76	-0.26	-0.43
YA9LRY		37.04	-0.59	-0.92	37.39	0.38	0.61
YJ7NV3		38.11	0.48	0.74	37.77	0.75	1.22

Summary Statistics

	Sample G59		Sample G60	
Grand Means	37.63	HRC	37.02	HRC
Stnd Dev Btwn Labs	0.65	HRC	0.61	HRC

Samples G59, G60 : 1/2-20 x 2 1/2, 1/2-20 x 2 3/4

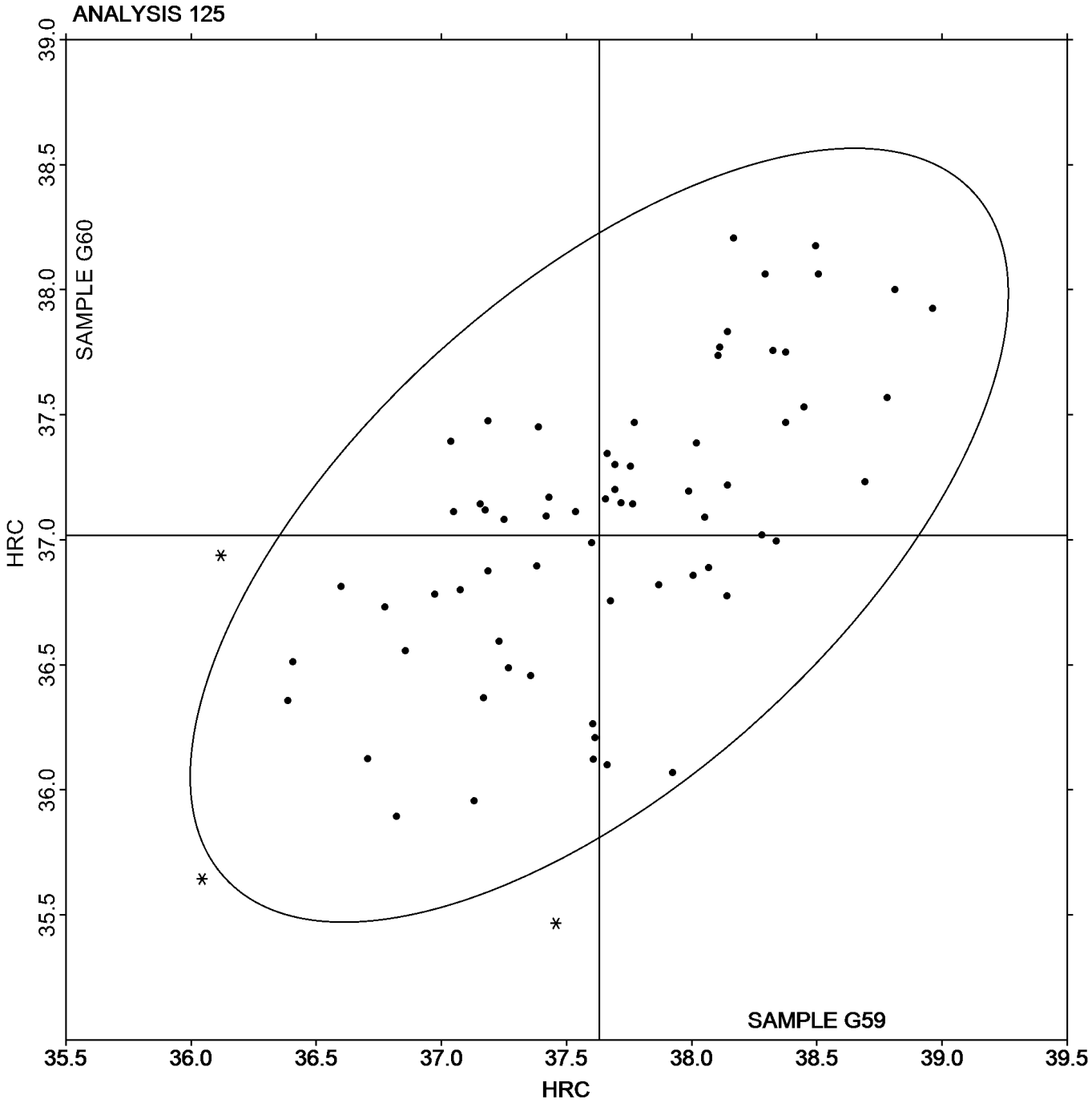
Statistics based on 69 of 71 reporting participants

Comments on Assigned Data Flags for Test #125

K74GJT (X) - Data for both samples are low. Inconsistent within the determinations of both samples.

VKF8HV (X) - Data for both samples are low.

SAMPLE G59	SAMPLE G60
37.63 HRC	37.02 HRC



		Sample V59			Sample V60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
7UQ9AY		365.06	-9.59	-1.37	364.75	-3.72	-0.43
82P94L		382.71	8.05	1.15	374.64	6.18	0.72
89UJMK		367.31	-7.34	-1.05	357.75	-10.72	-1.25
9323QD		374.13	-0.53	-0.08	365.38	-3.09	-0.36
9CA7Y6		368.88	-5.78	-0.83	365.94	-2.53	-0.30
9E26FN		378.44	3.78	0.54	370.13	1.66	0.19
AWQG9U		368.64	-6.02	-0.86	363.19	-5.27	-0.62
B7D7T9		382.00	7.34	1.05	375.81	7.35	0.86
ER2KFC		374.69	0.03	0.00	371.81	3.35	0.39
FHBQ79		377.63	2.97	0.42	370.13	1.66	0.19
GDX3RC		376.25	1.59	0.23	366.56	-1.90	-0.22
GULMUU		365.24	-9.41	-1.35	361.70	-6.77	-0.79
HB2EXZ		372.50	-2.16	-0.31	361.13	-7.34	-0.86
K6MVMP		383.35	8.69	1.24	366.15	-2.32	-0.27
KBEPQP		386.81	12.16	1.74	384.88	16.41	1.92
LKZ9NU		384.59	9.93	1.42	374.05	5.58	0.65
LTRNBD		381.59	6.93	0.99	386.31	17.84	2.09
N8MRTA		375.25	0.59	0.08	367.13	-1.34	-0.16
N8ZU9A		375.93	1.27	0.18	380.15	11.68	1.37
PWKQQP		360.56	-14.10	-2.02	345.72	-22.75	-2.66
Q6UF4N		378.41	3.76	0.54	370.24	1.78	0.21
ULKUR4		369.44	-5.22	-0.75	368.00	-0.47	-0.05
W8EFQW		367.13	-7.53	-1.08	366.44	-2.03	-0.24
WEZ93W		375.25	0.59	0.08	365.25	-3.22	-0.38

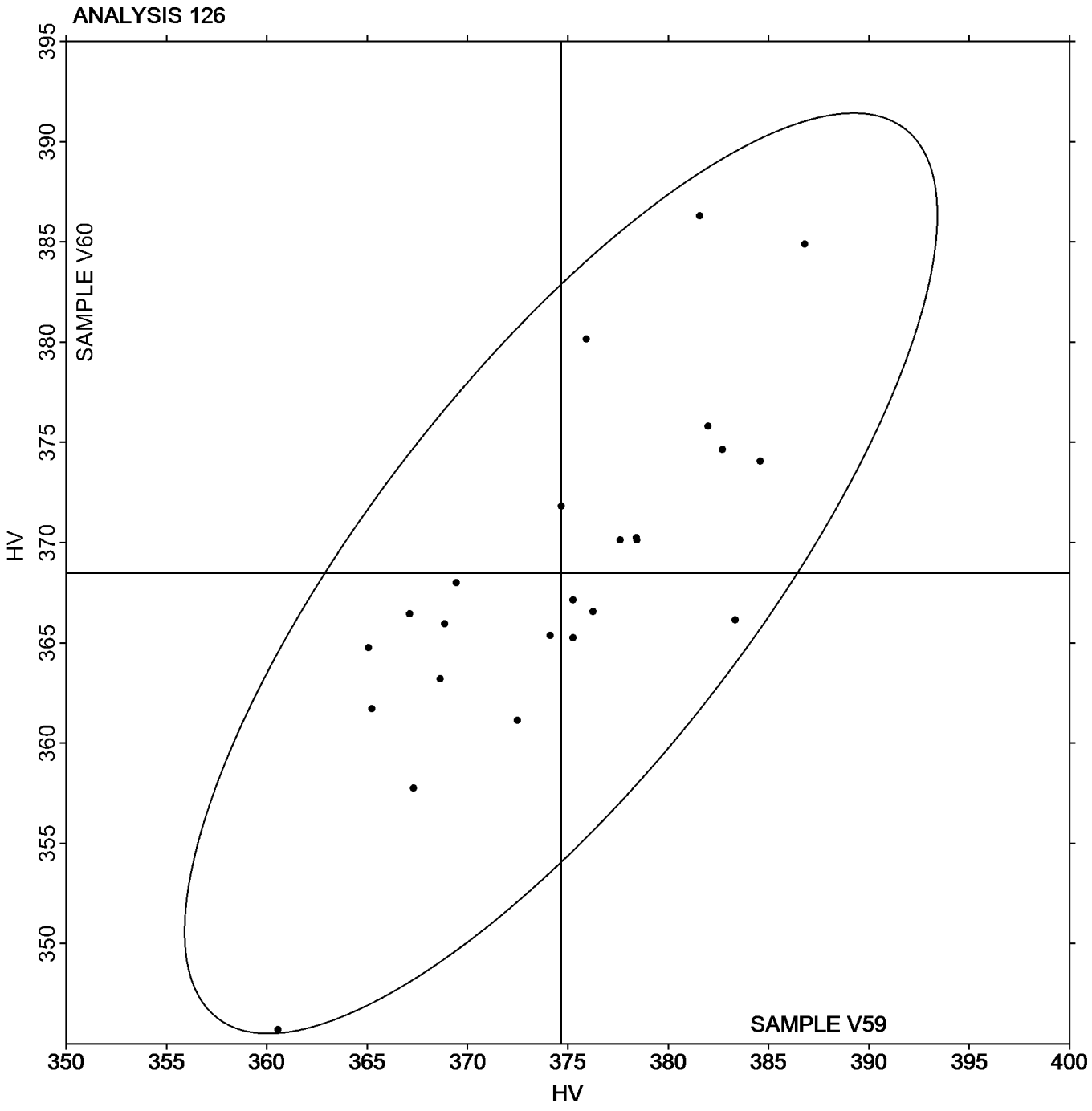
Summary Statistics

	Sample V59		Sample V60	
Grand Means	374.66	HV	368.47	HV
Stnd Dev Btwn Labs	6.99	HV	8.55	HV

Samples V59, V60 : 1/2-20 x 2 1/2, 1/2-20 x 2 3/4

Statistics based on 24 of 24 reporting participants

SAMPLE V59	SAMPLE V60
374.66 HV	368.47 HV



		Sample B59			Sample B60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
26FZEX		1,149	-5	-0.45	1,161	1	0.09
2WGBFK		1,150	-4	-0.40	1,157	-4	-0.39
44PLLG		1,143	-11	-1.03	1,168	7	0.78
82P94L	X	1,078	-77	-6.86	1,120	-40	-4.33
9E26FN		1,149	-6	-0.51	1,152	-9	-0.95
A946AR		1,165	11	0.96	1,167	6	0.68
GULMUU	X	1,391	236	21.16	1,388	227	24.40
GWPNF2	X	14,851	13,697	1,226.13	15,005	13,845	1,485.82
GZQJ8G		1,171	16	1.47	1,168	8	0.83
HVKWWC		1,163	8	0.74	1,181	20	2.16
JKMBAD		1,155	0	0.02	1,162	2	0.20
K74GJT		1,160	6	0.50	1,170	9	1.02
KH4ZHY		1,151	-3	-0.30	1,162	1	0.16
KML9VQ		1,164	10	0.89	1,170	9	1.00
KQKJRQ		1,155	1	0.05	1,158	-2	-0.25
Q6UF4N		1,150	-5	-0.42	1,154	-6	-0.66
QRL6N8		1,169	15	1.34	1,149	-11	-1.20
RHZWV2		1,150	-5	-0.42	1,150	-10	-1.09
UB2K2N		1,162	8	0.68	1,157	-4	-0.38
ULKUR4		1,148	-7	-0.59	1,149	-12	-1.24
VKF8HV		1,133	-21	-1.92	1,146	-15	-1.59
W7MGBD		1,159	4	0.38	1,171	10	1.13
W8EFQW		1,155	1	0.08	1,152	-9	-0.95
WQTRJM		1,170	15	1.36	1,172	12	1.24
YA9LRY		1,127	-27	-2.42	1,155	-6	-0.59

Summary Statistics

	Sample B59		Sample B60	
Grand Means	1,154	MPa	1,161	MPa
Stnd Dev Btwn Labs	11	MPa	9	MPa

Samples B59, B60 : M-10x1.5x70, M-10x1.5x75

Statistics based on 22 of 25 reporting participants

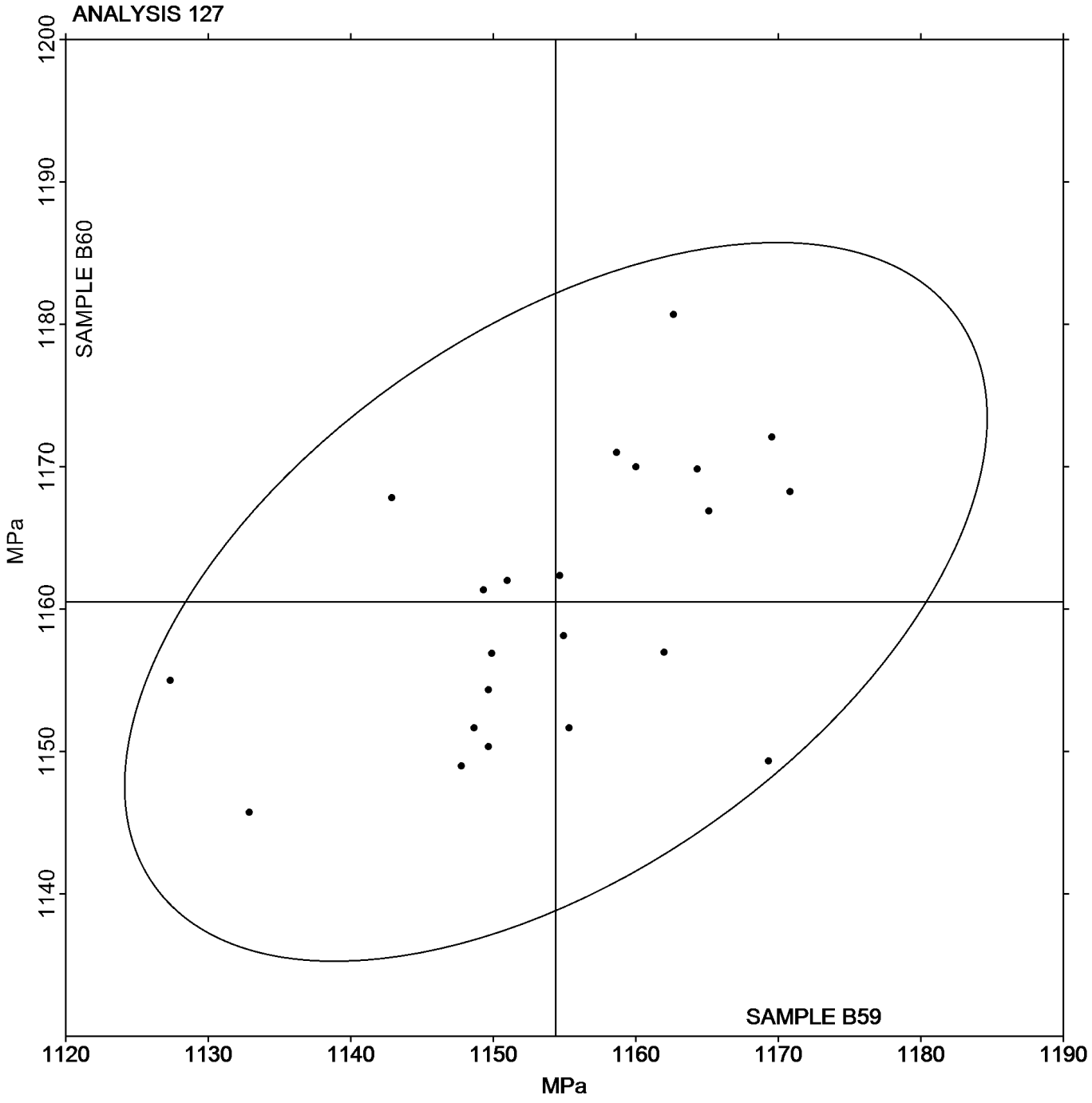
Comments on Assigned Data Flags for Test #127

82P94L (X) - Data for both samples are low. Inconsistent within the determinations of both samples.

GULMUU (X) - Data for both samples are very high.

GWPNF2 (X) - Extreme data.

SAMPLE B59	SAMPLE B60
1,154 MPa	1,161 MPa



		Sample T59			Sample T60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2E4MDL		1,148	-13	-0.69	1,177	16	0.98
37EYMZ		1,153	-7	-0.40	1,170	9	0.52
82P94L		1,173	13	0.71	1,122	-39	-2.34
9E26FN		1,206	45	2.51	1,173	12	0.70
BE68RP		1,149	-12	-0.66	1,152	-9	-0.57
DEWJK3		1,165	4	0.22	1,169	8	0.50
GWPNF2	X	14,999	13,838	763.74	15,105	13,944	844.69
GZQJ8G		1,159	-1	-0.06	1,171	10	0.62
HBWEPC		1,137	-24	-1.32	1,148	-13	-0.81
JKMBAD		1,153	-7	-0.40	1,154	-7	-0.41
N8ZU9A		1,171	10	0.58	1,178	17	1.00
N9PCV3		1,178	17	0.96	1,163	2	0.14
UB2K2N		1,166	5	0.30	1,181	20	1.20
ULKUR4		1,152	-9	-0.49	1,156	-5	-0.33
VXCVQP		1,138	-23	-1.26	1,141	-20	-1.20

Summary Statistics

	Sample T59		Sample T60	
Grand Means	1,161	MPa	1,161	MPa
Stnd Dev Btwn Labs	18	MPa	17	MPa

Samples T59, T60 : M-10x1.5x70, M-10x1.5x75

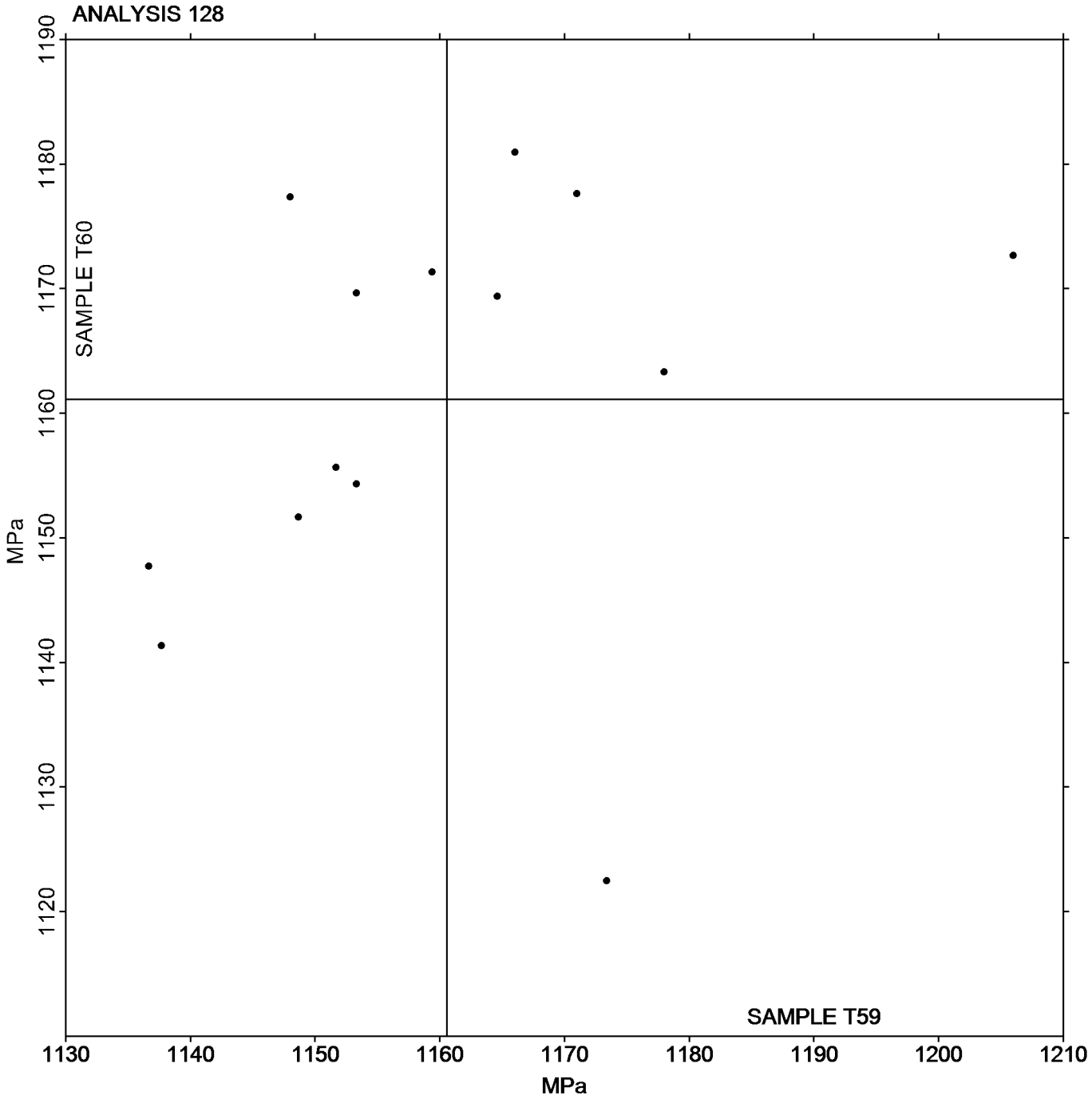
Statistics based on 14 of 15 reporting participants

Comments on Assigned Data Flags for Test #128

GWPNF2 (X) - Extreme data.

SAMPLE T59
1,161 MPa

SAMPLE T60
1,161 MPa



		Sample Z59			Sample Z60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2THWUG		19,594	317	0.50	21,781	168	0.34
6T78HE		19,272	-5	-0.01	21,768	156	0.31
7CYREP		19,058	-219	-0.34	21,580	-32	-0.07
9FKWVC		20,368	1,091	1.72	22,506	894	1.81
B7D7T9		18,698	-579	-0.91	21,043	-569	-1.15
BTRUGX		19,778	501	0.79	21,677	64	0.13
CB33V4		18,700	-577	-0.91	21,067	-546	-1.10
GDN744		18,624	-653	-1.03	20,985	-627	-1.27
HB2EXZ		19,342	65	0.10	22,091	478	0.97
HW246E		19,513	236	0.37	21,713	100	0.20
JUVEJ6		18,415	-862	-1.36	21,031	-581	-1.17
KKZVG2		19,533	256	0.40	22,033	421	0.85
LX3AXH		19,524	247	0.39	21,467	-145	-0.29
P6VTCP		18,967	-310	-0.49	21,500	-112	-0.23
TZNT6F		20,195	918	1.45	22,293	681	1.38
UNDJE6		19,332	55	0.09	21,497	-115	-0.23
VGNXW6		20,176	899	1.42	22,469	857	1.73
VPWPLY		19,143	-134	-0.21	21,394	-218	-0.44
W7MGBD		19,518	241	0.38	21,597	-15	-0.03
ZLE2BA		17,789	-1,488	-2.34	20,756	-856	-1.73

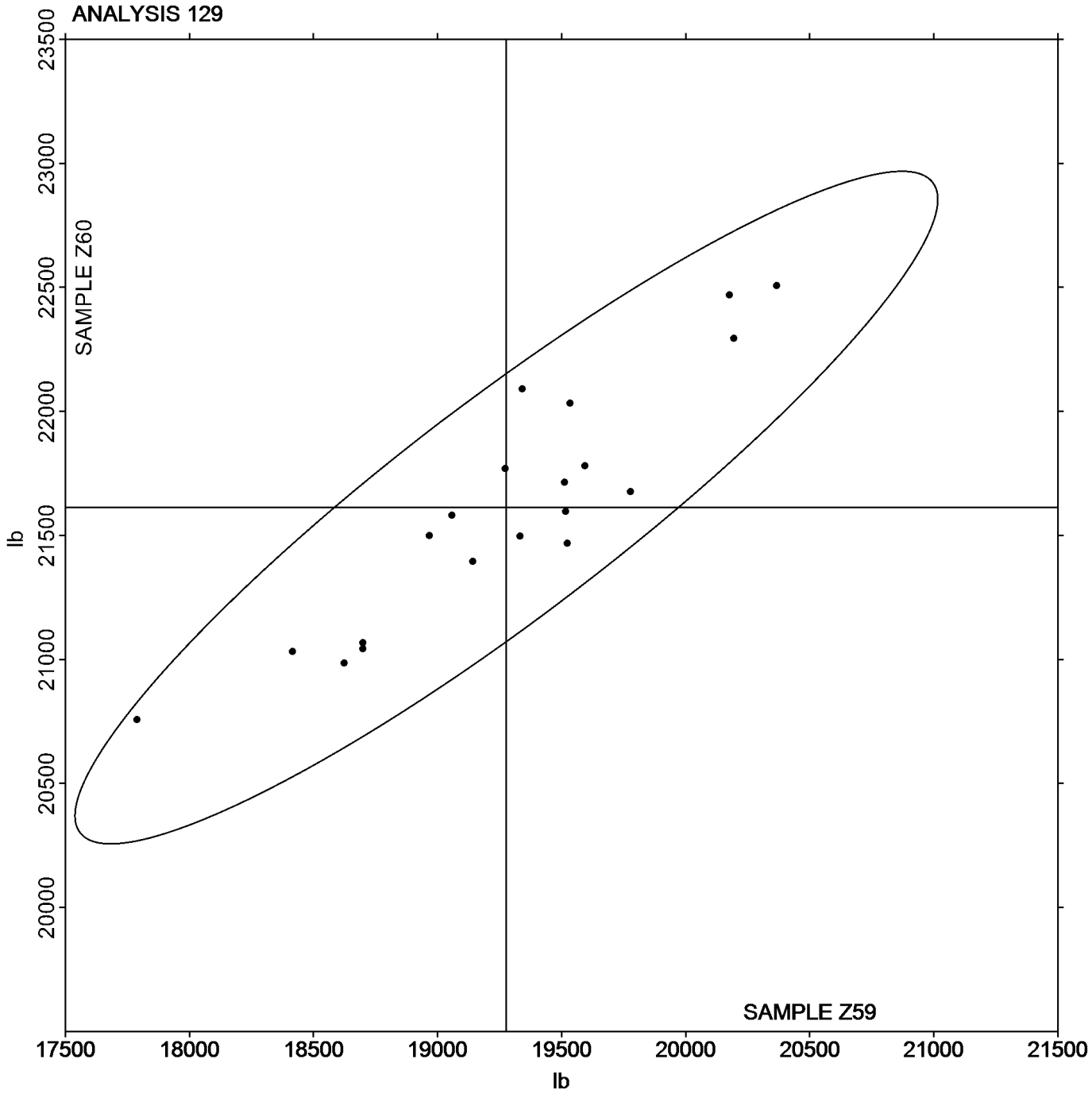
Summary Statistics

	Sample Z59		Sample Z60	
Grand Means	19,277	lb	21,613	lb
Stnd Dev Btwn Labs	635	lb	495	lb

Samples Z59, Z60 : 3/8-16 x 2 1/4, 3/8-16 x 2 1/4

Statistics based on 20 of 20 reporting participants

SAMPLE Z59	SAMPLE Z60
19,277 lb	21,613 lb



		Sample F59			Sample F60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
26WPPH		52.22	1.91	2.33	51.66	2.11	2.46
27J77W		50.40	0.09	0.11	49.50	-0.05	-0.06
2DZMQJ	X	50.33	0.02	0.02	50.76	1.22	1.42
2FXCGE		50.92	0.61	0.74	50.06	0.52	0.60
2KYB9H		49.95	-0.36	-0.45	49.38	-0.17	-0.19
2VNDAY	X	48.12	-2.19	-2.68	48.82	-0.73	-0.85
2WYLBZ		50.10	-0.22	-0.26	49.36	-0.19	-0.22
2ZHEAT		50.50	0.19	0.23	49.70	0.15	0.18
33FGRU		51.20	0.89	1.09	50.30	0.75	0.88
348QCV	*	48.50	-1.81	-2.22	47.20	-2.35	-2.74
42NF9W		50.91	0.60	0.73	50.18	0.64	0.74
46PCZC		49.81	-0.50	-0.61	49.56	0.01	0.01
49XDQ2		51.20	0.89	1.09	50.30	0.75	0.88
4D47B9		50.93	0.62	0.76	50.16	0.61	0.71
4HRG2P		49.91	-0.40	-0.49	49.41	-0.14	-0.16
4K6HAQ		50.07	-0.24	-0.30	49.68	0.13	0.15
4P4MMU		50.30	-0.01	-0.02	49.70	0.15	0.18
4RXV3X		49.60	-0.71	-0.87	48.60	-0.95	-1.11
67EAJ3		50.00	-0.31	-0.38	49.00	-0.55	-0.64
6CUJGQ		50.63	0.31	0.38	49.75	0.20	0.23
6YUH8W		49.00	-1.31	-1.61	48.10	-1.45	-1.69
7BWLRG		50.80	0.49	0.60	49.60	0.05	0.06
7KBNGB		49.73	-0.58	-0.71	48.96	-0.59	-0.69
7LNFCD		49.80	-0.51	-0.63	49.20	-0.35	-0.41
7TUR44	X	49.38	-0.93	-1.14	51.16	1.61	1.88
7VKYDT		51.30	0.99	1.21	50.50	0.95	1.11
7YHPDC		50.47	0.16	0.20	49.60	0.05	0.06
87K32M	*	48.30	-2.01	-2.46	47.90	-1.65	-1.92
8BVX4B	*	52.50	2.19	2.68	51.50	1.95	2.27
8LEC6T		50.70	0.39	0.47	50.10	0.55	0.64
96MNE2		50.66	0.35	0.43	50.14	0.59	0.69
9XQN4F	X	49.80	-0.51	-0.63	47.60	-1.95	-2.27
9ZNRCG		50.50	0.19	0.23	49.80	0.25	0.29
A4B9KZ		50.65	0.34	0.41	49.81	0.26	0.30
AARADB		49.79	-0.52	-0.64	48.25	-1.30	-1.52
AFRQLK		49.90	-0.41	-0.50	49.20	-0.35	-0.41
AZ9TUG	X	33.00	-17.31	-21.18	27.60	-21.95	-25.58
AZX4D8		50.63	0.32	0.39	49.78	0.23	0.27
BAAH6Q		49.75	-0.56	-0.69	49.02	-0.53	-0.61
BCZKAE		48.92	-1.39	-1.70	48.83	-0.72	-0.83
BDDLJF		51.20	0.89	1.08	50.50	0.95	1.11
BDU2CM		49.90	-0.41	-0.50	48.40	-1.15	-1.34
BKR6AL		50.59	0.28	0.34	50.08	0.53	0.62
BWEERK	*	49.18	-1.13	-1.39	47.51	-2.04	-2.38
CUW2YG		50.50	0.19	0.23	50.00	0.45	0.53
CUZGE4		50.00	-0.31	-0.38	49.30	-0.25	-0.29
DVW4RH		51.10	0.79	0.96	49.60	0.05	0.06

		Sample F59			Sample F60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
DXEF3H		50.20	-0.11	-0.14	49.80	0.25	0.29
EDLRE8		50.72	0.41	0.50	49.77	0.22	0.26
ELDAQV		51.00	0.69	0.84	50.50	0.95	1.11
EMCKKC	X	54.32	4.00	4.90	52.49	2.94	3.43
FRA37V		50.10	-0.21	-0.26	49.40	-0.15	-0.17
FRCY9D		51.47	1.16	1.42	51.17	1.62	1.89
FYXD66		49.70	-0.61	-0.75	48.70	-0.85	-0.99
G2L8L7		50.10	-0.21	-0.26	49.30	-0.25	-0.29
GDX3RC	*	52.07	1.76	2.15	51.92	2.38	2.77
GRC83J		50.10	-0.21	-0.26	49.20	-0.35	-0.41
GULMUU	X	48.83	-1.48	-1.81	50.82	1.27	1.48
H3KBKY		50.50	0.19	0.23	49.70	0.15	0.18
HG7QNX		50.20	-0.11	-0.14	49.60	0.05	0.06
HGQY2F		50.60	0.29	0.35	49.60	0.05	0.06
HQP6NF		50.96	0.65	0.80	49.38	-0.17	-0.19
HUVL7J		50.80	0.49	0.60	49.70	0.15	0.18
JD43R9		50.53	0.22	0.27	50.13	0.58	0.67
JE9XUY		48.95	-1.36	-1.67	48.30	-1.25	-1.46
JK8HLB		50.90	0.59	0.72	50.20	0.65	0.76
JKQW3F		50.50	0.19	0.23	49.50	-0.05	-0.06
KFMGVA		50.60	0.29	0.35	49.90	0.35	0.41
KFXLRK		51.00	0.69	0.84	50.40	0.85	0.99
KP3PY3		50.72	0.41	0.50	49.69	0.14	0.16
KPZXRW		49.57	-0.74	-0.90	49.12	-0.43	-0.50
KYZ72U		49.40	-0.91	-1.12	49.40	-0.15	-0.17
L2BTGH		49.91	-0.40	-0.49	49.24	-0.31	-0.36
LAWZZH		50.30	-0.01	-0.02	49.41	-0.13	-0.16
LTRNBD		50.47	0.16	0.20	49.60	0.05	0.06
LXYW29	*	50.27	-0.04	-0.05	50.43	0.88	1.03
MKYK2P		49.47	-0.84	-1.03	49.10	-0.45	-0.52
MRZRLJ	X	48.40	-1.91	-2.34	48.90	-0.65	-0.76
N3MWVU		50.20	-0.11	-0.14	49.20	-0.35	-0.41
NKL8KJ		49.52	-0.79	-0.97	48.43	-1.12	-1.30
NY7PF9		49.23	-1.09	-1.33	48.81	-0.74	-0.87
P3L4P8		52.21	1.90	2.33	51.49	1.94	2.26
PPB4ME		48.90	-1.41	-1.73	47.90	-1.65	-1.92
Q47UY3		49.44	-0.87	-1.07	49.28	-0.27	-0.31
Q7FU2P		51.20	0.89	1.09	50.50	0.95	1.11
RFRBQ6		51.40	1.09	1.33	50.20	0.65	0.76
RLVMUA		49.30	-1.01	-1.24	49.00	-0.55	-0.64
T6NF9Y		49.96	-0.35	-0.43	48.93	-0.62	-0.72
TVMGWA		50.80	0.49	0.60	50.00	0.45	0.53
TZNT6F		49.10	-1.21	-1.48	48.80	-0.75	-0.87
UT4XZ7		50.49	0.18	0.21	50.05	0.50	0.59
UTT4M3	X	49.65	-0.66	-0.81	46.37	-3.18	-3.70
UVJ32Z		50.68	0.37	0.45	49.32	-0.23	-0.27
VAPZVZ		51.63	1.32	1.62	51.13	1.58	1.84

		Sample F59			Sample F60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
VEF2QZ		50.54	0.23	0.28	49.10	-0.45	-0.52
VLJCAY	X	48.60	-1.71	-2.09	49.40	-0.15	-0.17
VPRFJZ		49.89	-0.43	-0.52	48.64	-0.91	-1.06
VUTLXR		50.62	0.31	0.37	49.60	0.05	0.06
VYJMTQ		50.40	0.09	0.11	49.55	0.00	0.00
W3YJQF		50.00	-0.31	-0.38	49.70	0.15	0.18
W8CQHT		49.78	-0.53	-0.65	48.81	-0.74	-0.87
WBLLP3		50.80	0.49	0.60	49.50	-0.05	-0.06
WFYH6C		48.87	-1.44	-1.76	48.44	-1.11	-1.30
WND4MG	X	51.40	1.09	1.33	52.00	2.45	2.86
WNGQ2A	X	49.46	-0.85	-1.04	49.97	0.42	0.49
WR2A97		49.70	-0.61	-0.75	48.70	-0.85	-0.99
WZQBL3		49.00	-1.31	-1.61	48.80	-0.75	-0.87
XYQUJP		50.90	0.59	0.72	50.50	0.95	1.11
YAXETJ		51.33	1.02	1.24	50.19	0.64	0.75
YWZTE2		51.60	1.29	1.58	51.10	1.55	1.81
ZGXTF7		49.30	-1.01	-1.24	48.30	-1.25	-1.45
ZUXWE7	X	48.10	-2.21	-2.71	48.60	-0.95	-1.11

Summary Statistics

	Sample F59		Sample F60	
Grand Means	50.31	ksi	49.55	ksi
Stnd Dev Btwn Labs	0.82	ksi	0.86	ksi

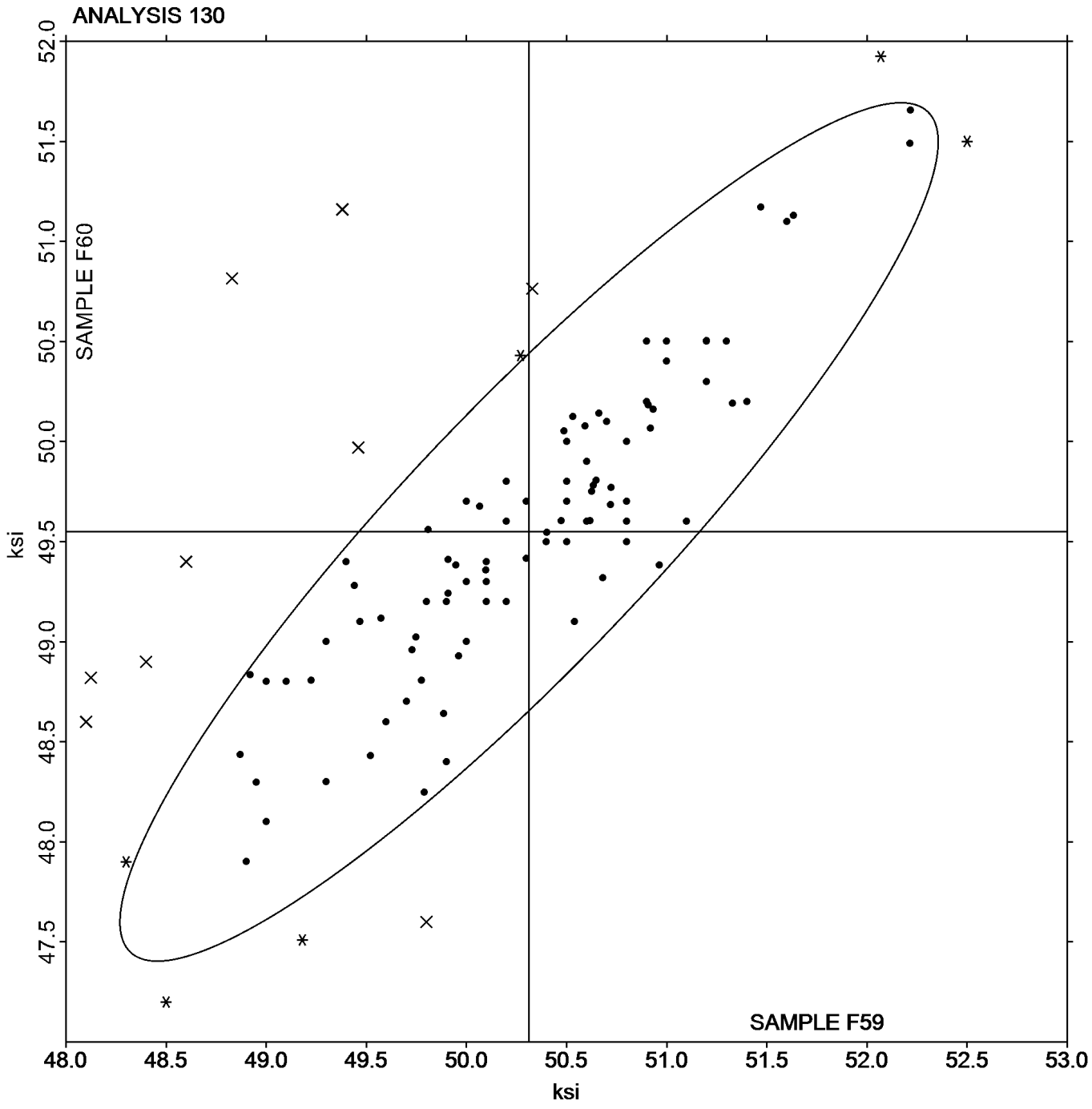
Samples F59, F60 : ASTM A1008 - 14G, ASTM A1008 - 16G

Statistics based on 99 of 112 reporting participants

Comments on Assigned Data Flags for Test #130

2DZMQJ (X) - Inconsistent in testing between samples.
2VNDAY (X) - Inconsistent in testing between samples.
7TUR44 (X) - Inconsistent in testing between samples.
9XQN4F (X) - Inconsistent in testing between samples.
AZ9TUG (X) - Data appear to be meant for Test 131.
EMCKKC (X) - Data for both samples are high. Possible Systematic Error.
GULMUU (X) - Inconsistent in testing between samples.
MRZRLJ (X) - Inconsistent in testing between samples.
UTT4M3 (X) - Data for sample F60 are low.
VLJCAY (X) - Inconsistent in testing between samples.
WND4MG (X) - Data for sample F60 are high.
WNGQ2A (X) - Inconsistent in testing between samples.
ZUXWE7 (X) - Inconsistent in testing between samples.

SAMPLE F59	SAMPLE F60
50.31 ksi	49.55 ksi



		Sample F59			Sample F60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
26WPPH	X	38.02	4.26	3.13	27.27	-0.47	-0.43
27J77W		35.30	1.55	1.14	29.60	1.86	1.70
2DZMQJ		34.08	0.33	0.24	28.14	0.39	0.36
2FXCGE		35.13	1.38	1.01	27.45	-0.29	-0.27
2KYB9H		33.48	-0.27	-0.20	27.74	-0.01	-0.01
2VNDAY		30.82	-2.93	-2.16	26.40	-1.35	-1.23
2WYLBZ		35.61	1.85	1.36	28.67	0.93	0.85
2ZHEAT		34.60	0.85	0.62	27.20	-0.54	-0.50
33FGRU		34.00	0.25	0.18	27.30	-0.44	-0.40
348QCV		34.40	0.65	0.47	27.20	-0.54	-0.50
42NF9W		33.94	0.18	0.14	27.56	-0.19	-0.17
46PCZC		32.49	-1.26	-0.93	26.34	-1.40	-1.28
49XDQ2		34.40	0.65	0.47	29.10	1.36	1.24
4D47B9		34.19	0.43	0.32	27.94	0.20	0.18
4HRG2P		32.87	-0.88	-0.65	27.94	0.20	0.18
4K6HAQ		33.56	-0.19	-0.14	27.64	-0.10	-0.09
4P4MMU		34.80	1.05	0.77	29.00	1.26	1.15
4RXV3X		33.00	-0.75	-0.55	27.20	-0.54	-0.50
67EAJ3	X	33.00	-0.75	-0.55	43.00	15.26	13.93
6CUJGQ		33.92	0.17	0.12	27.02	-0.72	-0.66
6YUH8W		32.30	-1.45	-1.07	26.40	-1.34	-1.23
7BWLRG		34.10	0.35	0.25	27.70	-0.04	-0.04
7KBNGB		33.65	-0.10	-0.08	27.96	0.22	0.20
7LNFCD		33.30	-0.45	-0.33	27.10	-0.64	-0.59
7TUR44	X	31.19	-2.56	-1.88	28.14	0.40	0.36
7VKYDT		34.90	1.15	0.84	29.20	1.46	1.33
7YHPDC		33.79	0.04	0.03	29.01	1.26	1.15
87K32M		32.30	-1.45	-1.07	26.50	-1.24	-1.13
8BVX4B		33.60	-0.15	-0.11	28.10	0.36	0.33
8LEC6T		35.70	1.95	1.43	30.30	2.56	2.33
96MNE2		33.82	0.07	0.05	26.57	-1.17	-1.07
9XQN4F	X	35.00	1.25	0.92	26.00	-1.74	-1.59
9ZNRCG		33.60	-0.15	-0.11	27.40	-0.34	-0.31
A4B9KZ		34.62	0.87	0.64	27.89	0.15	0.14
AARADB		33.82	0.07	0.05	27.84	0.10	0.09
AFRQLK		32.90	-0.85	-0.63	27.00	-0.74	-0.68
AZ9TUG	X	51.10	17.35	12.74	50.50	22.76	20.78
AZX4D8		34.28	0.52	0.38	27.31	-0.43	-0.40
BAAH6Q		32.63	-1.12	-0.82	26.98	-0.77	-0.70
BCZKAE		33.24	-0.52	-0.38	27.33	-0.41	-0.38
BDDLJF	X	51.20	17.44	12.82	50.50	22.76	20.78
BDU2CM		33.10	-0.65	-0.48	28.50	0.76	0.69
BKR6AL	*	35.87	2.11	1.55	30.64	2.89	2.64
CUW2YG		35.10	1.35	0.99	28.60	0.86	0.78
CUZGE4		31.90	-1.85	-1.36	26.30	-1.44	-1.32
DVW4RH		37.00	3.25	2.38	29.70	1.96	1.79
DXEF3H		35.00	1.25	0.92	27.50	-0.24	-0.22

		Sample F59			Sample F60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
EDLRE8		34.17	0.41	0.30	27.75	0.01	0.01
ELDAQV		32.60	-1.15	-0.85	26.50	-1.24	-1.13
EMCKKC		35.48	1.72	1.27	30.23	2.48	2.27
FRA37V		31.40	-2.35	-1.73	27.40	-0.34	-0.31
FYXD66		32.00	-1.75	-1.29	26.80	-0.94	-0.86
G2L8L7		33.60	-0.15	-0.11	27.10	-0.64	-0.59
GDX3RC		34.66	0.91	0.67	28.43	0.68	0.63
GRC83J		33.70	-0.05	-0.04	26.90	-0.84	-0.77
GULMUU		31.62	-2.13	-1.57	26.61	-1.13	-1.03
H3KBKY		32.90	-0.85	-0.63	27.20	-0.54	-0.50
HG7QNX		33.10	-0.65	-0.48	27.50	-0.24	-0.22
HGQY2F		34.20	0.45	0.33	28.00	0.26	0.23
HQP6NF		34.81	1.06	0.78	29.39	1.65	1.50
HUVL7J		35.30	1.55	1.14	28.90	1.16	1.06
JD43R9		32.59	-1.16	-0.86	27.05	-0.69	-0.63
JK8HLB		34.30	0.55	0.40	28.20	0.46	0.42
JKQW3F		33.50	-0.25	-0.19	26.90	-0.84	-0.77
KFMGVA		32.60	-1.15	-0.85	27.50	-0.24	-0.22
KFXLRK		33.80	0.05	0.03	27.10	-0.64	-0.59
KP3PY3		34.09	0.34	0.25	27.96	0.21	0.19
KPZXRW		33.83	0.07	0.05	27.31	-0.43	-0.40
KYZ72U		33.60	-0.15	-0.11	27.50	-0.24	-0.22
L2BTGH		34.11	0.36	0.26	27.57	-0.17	-0.16
LAWZZH		32.87	-0.89	-0.65	27.12	-0.62	-0.57
LTRNBD		34.23	0.47	0.35	27.85	0.10	0.10
LXYW29		32.10	-1.65	-1.22	27.34	-0.40	-0.37
MKYK2P		32.64	-1.11	-0.82	26.59	-1.15	-1.05
MRZRLJ		34.20	0.45	0.33	26.90	-0.84	-0.77
N3MWVU		35.30	1.55	1.14	27.70	-0.04	-0.04
NKL8KJ		34.12	0.37	0.27	27.63	-0.11	-0.10
NY7PF9		32.21	-1.54	-1.13	26.56	-1.19	-1.08
P3L4P8		34.37	0.62	0.46	27.56	-0.19	-0.17
PPB4ME		32.50	-1.25	-0.92	27.00	-0.74	-0.68
Q7FU2P		34.00	0.25	0.18	28.60	0.86	0.78
RFRBQ6		34.00	0.25	0.18	28.30	0.56	0.51
RLVMUA		31.90	-1.85	-1.36	27.10	-0.64	-0.59
T6NF9Y	*	35.82	2.07	1.52	27.21	-0.53	-0.49
TVMGWA		34.10	0.35	0.25	27.10	-0.64	-0.59
TZNT6F		32.40	-1.35	-1.00	25.50	-2.24	-2.05
UT4XZ7		32.84	-0.92	-0.67	26.99	-0.75	-0.69
UTT4M3	X	36.01	2.25	1.65	25.70	-2.05	-1.87
VAPZVZ		36.53	2.77	2.04	29.60	1.85	1.69
VEF2QZ		35.85	2.10	1.54	29.74	2.00	1.82
VLJCAY	*	30.00	-3.75	-2.76	26.10	-1.64	-1.50
VPRFJZ	X	43.80	10.05	7.38	27.15	-0.59	-0.54
VUTLXR		34.08	0.33	0.24	27.41	-0.33	-0.30
VYJMTQ		33.72	-0.03	-0.02	27.27	-0.48	-0.43

Fasteners and Metals Interlaboratory Testing Program

Analysis 131

Yield Strength: Lab-Machined Flat Steel
ASTM E8

WebCode	Data Flag	Sample F59 Lab Mean	Sample F59 Diff. from Grand Mean	Sample F59 CPV	Sample F60 Lab Mean	Sample F60 Diff. from Grand Mean	Sample F60 CPV
W3YJQF		31.70	-2.05	-1.51	27.40	-0.34	-0.31
W8CQHT		33.91	0.16	0.12	28.25	0.51	0.46
WBLLP3		36.30	2.55	1.87	29.50	1.76	1.60
WFYH6C		32.64	-1.11	-0.82	26.96	-0.78	-0.71
WND4MG		33.20	-0.55	-0.41	27.80	0.06	0.05
WNGQ2A		33.17	-0.58	-0.43	28.47	0.73	0.66
WR2A97		32.00	-1.75	-1.29	27.40	-0.34	-0.31
WZQBL3	*	36.70	2.95	2.16	31.10	3.36	3.06
XYQUJP	X	36.25	2.50	1.83	40.85	13.11	11.97
YAXETJ		35.05	1.30	0.95	28.32	0.57	0.52
YWZTE2	*	36.80	3.05	2.24	30.70	2.96	2.70
ZGXTF7		33.10	-0.65	-0.48	26.30	-1.44	-1.32
ZUXWE7	*	30.50	-3.25	-2.39	26.40	-1.34	-1.23

Summary Statistics

	Sample F59		Sample F60	
Grand Means	33.75	ksi	27.74	ksi
Stnd Dev Btwn Labs	1.36	ksi	1.10	ksi

Samples F59, F60 : ASTM A1008 - 14G, ASTM A1008 - 16G

Statistics based on 98 of 107 reporting participants

Comments on Assigned Data Flags for Test #131

26WPPH (X) - Data for sample F59 are high.

67EAJ3 (X) - Data for sample F60 are high.

7TUR44 (X) - Inconsistent in testing between samples.

9XQN4F (X) - Inconsistent in testing between samples.

AZ9TUG (X) - Data appear to be intended for Test 130.

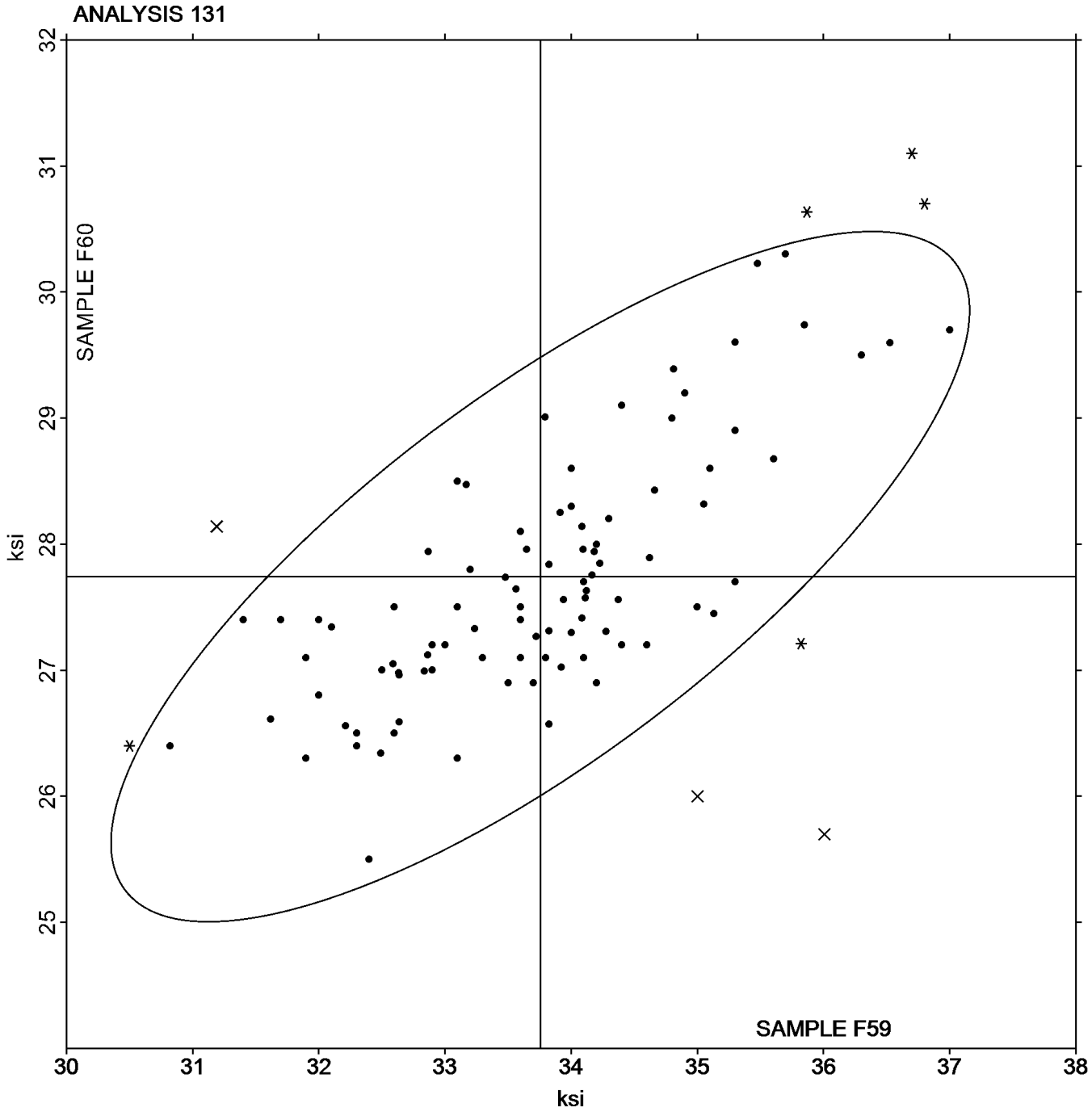
BDDLJF (X) - Data appear to be intended for Test 130.

UTT4M3 (X) - Inconsistent in testing between samples.

VPRFJZ (X) - Data for sample F59 are high.

XYQUJP (X) - Data for sample F60 are high.

SAMPLE F59	SAMPLE F60
33.75 ksi	27.74 ksi



		Sample F59			Sample F60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
26WPPH		38.97	0.02	0.01	40.62	-1.13	-0.45
27J77W		34.90	-4.05	-1.59	40.80	-0.95	-0.38
2DZMQJ		39.00	0.05	0.02	42.00	0.25	0.10
2FXCGE		40.50	1.55	0.61	43.20	1.45	0.58
2KYB9H		34.30	-4.65	-1.82	36.20	-5.55	-2.23
2VNDAY		37.00	-1.95	-0.76	37.20	-4.55	-1.83
2WYLBZ		39.80	0.85	0.33	44.70	2.95	1.19
2ZHEAT		35.40	-3.55	-1.39	39.90	-1.85	-0.74
33FGRU		37.80	-1.15	-0.45	39.40	-2.35	-0.94
348QCV		33.30	-5.65	-2.21	37.10	-4.65	-1.87
42NF9W		37.40	-1.55	-0.61	40.30	-1.45	-0.58
46PCZC		39.46	0.51	0.20	41.82	0.07	0.03
49XDQ2		36.60	-2.35	-0.92	39.40	-2.35	-0.94
4D47B9		40.60	1.65	0.65	42.40	0.65	0.26
4HRG2P		39.50	0.55	0.21	42.20	0.45	0.18
4K6HAQ		41.80	2.85	1.12	44.50	2.75	1.11
4P4MMU		37.10	-1.85	-0.72	38.30	-3.45	-1.39
4RXV3X		39.10	0.15	0.06	41.80	0.05	0.02
67EAJ3		38.00	-0.95	-0.37	43.00	1.25	0.50
6CUJGQ		35.39	-3.56	-1.39	38.81	-2.94	-1.18
6YUH8W		41.00	2.05	0.80	43.00	1.25	0.50
7BWLRG	*	39.50	0.55	0.21	46.00	4.25	1.71
7KBNGB		43.96	5.01	1.96	46.97	5.22	2.10
7LNFCD		38.00	-0.95	-0.37	40.00	-1.75	-0.70
7TUR44		40.60	1.65	0.65	43.90	2.15	0.87
7VKYDT		37.20	-1.75	-0.69	40.00	-1.75	-0.70
7YHPDC		40.00	1.05	0.41	40.00	-1.75	-0.70
87K32M		40.60	1.65	0.65	44.20	2.45	0.99
8BVX4B		34.70	-4.25	-1.66	37.70	-4.05	-1.63
8LEC6T		35.00	-3.95	-1.55	37.50	-4.25	-1.71
96MNE2		41.90	2.95	1.15	44.10	2.35	0.95
9XQN4F		39.20	0.25	0.10	44.70	2.95	1.19
9ZNRCG		40.50	1.55	0.61	43.40	1.65	0.66
A4B9KZ		39.20	0.25	0.10	41.60	-0.15	-0.06
AARADB		40.87	1.92	0.75	44.75	3.00	1.21
AFRQLK		39.50	0.55	0.21	42.20	0.45	0.18
AZ9TUG		38.20	-0.75	-0.29	43.10	1.35	0.54
AZX4D8		40.70	1.75	0.68	43.90	2.15	0.87
BAAH6Q	*	43.60	4.65	1.82	42.60	0.85	0.34
BCZKAE		39.27	0.32	0.13	45.28	3.53	1.42
BDDLJF		36.40	-2.55	-1.00	38.80	-2.95	-1.18
BDU2CM		43.00	4.05	1.58	45.00	3.25	1.31
BKR6AL		38.57	-0.38	-0.15	42.20	0.45	0.18
BWEERK		43.62	4.67	1.83	45.45	3.70	1.49
CUW2YG		38.40	-0.55	-0.22	40.00	-1.75	-0.70
CUZGE4		36.80	-2.15	-0.84	38.30	-3.45	-1.39
DVW4RH		34.00	-4.95	-1.94	39.30	-2.45	-0.98

		Sample F59			Sample F60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
DXEF3H		36.10	-2.85	-1.12	39.50	-2.25	-0.90
EDLRE8		37.50	-1.45	-0.57	42.50	0.75	0.30
ELDAQV		41.00	2.05	0.80	43.00	1.25	0.50
EMCKKC		36.50	-2.45	-0.96	38.90	-2.85	-1.14
FRA37V		40.10	1.15	0.45	43.00	1.25	0.50
FRCY9D		40.00	1.05	0.41	43.33	1.58	0.64
FYXD66		41.40	2.45	0.96	44.00	2.25	0.91
G2L8L7		39.30	0.35	0.14	40.60	-1.15	-0.46
GDX3RC		39.20	0.25	0.10	39.40	-2.35	-0.94
GRC83J		38.50	-0.45	-0.18	41.60	-0.15	-0.06
GULMUU		42.68	3.73	1.46	44.60	2.85	1.15
H3KBKY		37.90	-1.05	-0.41	40.80	-0.95	-0.38
HG7QNX		39.70	0.75	0.29	42.30	0.55	0.22
HGQY2F		40.40	1.45	0.57	42.70	0.95	0.38
HQP6NF	X	41.00	2.05	0.80	39.00	-2.75	-1.10
HUVL7J		39.00	0.05	0.02	39.40	-2.35	-0.94
JD43R9		36.80	-2.15	-0.84	40.70	-1.05	-0.42
JE9XUY		43.90	4.95	1.94	44.80	3.05	1.23
JK8HLB		38.40	-0.55	-0.22	40.00	-1.75	-0.70
JKQW3F		38.00	-0.95	-0.37	40.50	-1.25	-0.50
KFMGVA		39.40	0.45	0.18	41.60	-0.15	-0.06
KFXLRK		38.10	-0.85	-0.33	41.10	-0.65	-0.26
KP3PY3		39.50	0.55	0.21	42.30	0.55	0.22
KPZXRW		38.98	0.03	0.01	39.42	-2.33	-0.94
KYZ72U	X	43.00	4.05	1.58	40.00	-1.75	-0.70
L2BTGH		39.60	0.65	0.25	43.10	1.35	0.54
LAWZZH		40.70	1.75	0.68	43.30	1.55	0.62
LTRNBD		37.00	-1.95	-0.76	43.00	1.25	0.50
LXYW29		40.00	1.05	0.41	41.67	-0.08	-0.03
MKYK2P		38.00	-0.95	-0.37	40.00	-1.75	-0.70
MRZRLJ		38.60	-0.35	-0.14	40.50	-1.25	-0.50
N3MWVU		41.20	2.25	0.88	43.80	2.05	0.82
NKL8KJ	*	44.50	5.55	2.17	48.00	6.25	2.51
NY7PF9	X	53.10	14.15	5.54	59.80	18.05	7.25
PPB4ME		44.60	5.65	2.21	47.20	5.45	2.19
Q47UY3	*	36.67	-2.28	-0.89	43.33	1.58	0.64
Q7FU2P		40.70	1.75	0.68	42.20	0.45	0.18
RFRBQ6		38.50	-0.45	-0.18	40.20	-1.55	-0.62
RLVMUA		37.30	-1.65	-0.65	40.10	-1.65	-0.66
T6NF9Y		37.00	-1.95	-0.76	39.00	-2.75	-1.10
TVMGWA		41.00	2.05	0.80	43.00	1.25	0.50
TZNT6F		38.10	-0.85	-0.33	40.80	-0.95	-0.38
UT4XZ7		37.80	-1.15	-0.45	40.60	-1.15	-0.46
UTT4M3		34.90	-4.05	-1.59	40.70	-1.05	-0.42
UVJ32Z		44.50	5.55	2.17	47.75	6.00	2.41
VAPZVZ		38.60	-0.35	-0.14	41.30	-0.45	-0.18
VEF2QZ		35.83	-3.12	-1.22	39.97	-1.78	-0.71

		Sample F59			Sample F60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
VLJCAY		34.50	-4.45	-1.74	39.50	-2.25	-0.90
VPRFJZ	*	42.20	3.25	1.27	41.35	-0.40	-0.16
VUTLXR		35.50	-3.45	-1.35	38.00	-3.75	-1.51
VYJMTQ		36.70	-2.25	-0.88	38.90	-2.85	-1.14
W3YJQF		40.00	1.05	0.41	42.10	0.35	0.14
W8CQHT		39.86	0.91	0.36	43.70	1.95	0.78
WBLLP3		35.90	-3.05	-1.19	37.50	-4.25	-1.71
WFYH6C		44.72	5.77	2.26	47.05	5.30	2.13
WND4MG		39.60	0.65	0.25	42.20	0.45	0.18
WNGQ2A		43.00	4.05	1.58	46.00	4.25	1.71
WR2A97		39.70	0.75	0.29	42.50	0.75	0.30
WZQBL3	*	34.10	-4.85	-1.90	40.30	-1.45	-0.58
XYQUJP		37.45	-1.50	-0.59	39.80	-1.95	-0.78
YAXETJ		37.40	-1.55	-0.61	40.00	-1.75	-0.70
YWZTE2	X	37.50	-1.45	-0.57	34.20	-7.55	-3.03
ZGXTF7		38.50	-0.45	-0.18	40.90	-0.85	-0.34
ZUXWE7		41.00	2.05	0.80	44.00	2.25	0.91

Summary Statistics

	Sample F59		Sample F60	
Grand Means	38.95	Percent	41.75	Percent
Stnd Dev Btwn Labs	2.55	Percent	2.49	Percent

Samples F59, F60 : ASTM A1008 - 14G, ASTM A1008 - 16G

Statistics based on 107 of 111 reporting participants

Comments on Assigned Data Flags for Test #132

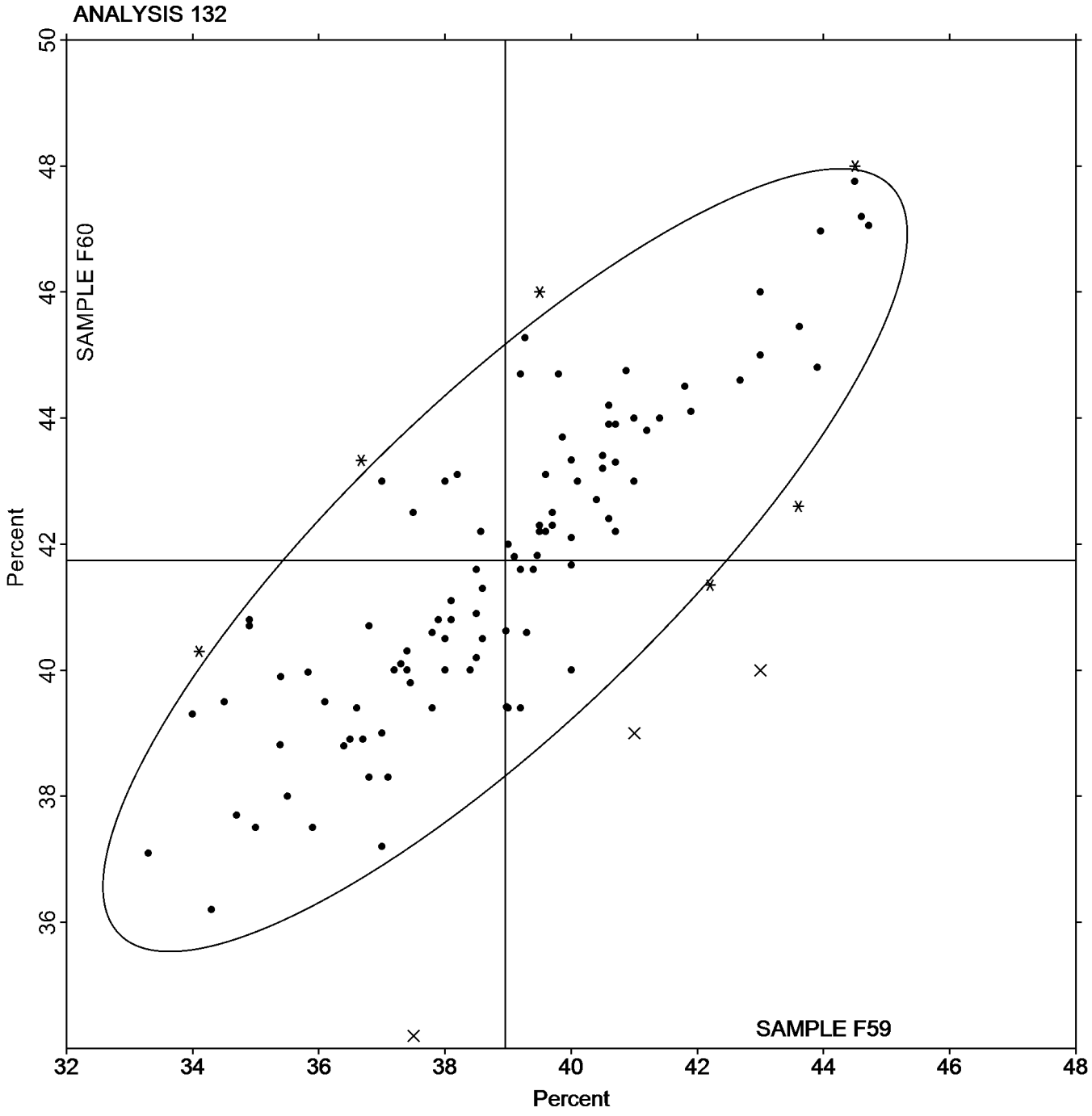
HQP6NF (X) - Inconsistent in testing between samples.

KYZ72U (X) - Inconsistent in testing between samples.

NY7PF9 (X) - Data for both samples are high. Possible Systematic Error.

YWZTE2 (X) - Data for sample F60 are low.

SAMPLE F59	SAMPLE F60
38.95 Percent	41.75 Percent



		Sample F59			Sample F60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2FXCGE		1.510	-0.008	-0.09	1.650	-0.008	-0.07
2WYLBZ		1.634	0.116	1.23	1.775	0.117	0.97
4D47B9		1.540	0.022	0.23	1.640	-0.018	-0.15
4K6HAQ		1.500	-0.018	-0.19	1.610	-0.048	-0.40
7BWLRG		1.522	0.004	0.04	1.595	-0.063	-0.52
7YHPDC		1.540	0.022	0.23	1.790	0.132	1.09
8BVX4B		1.400	-0.118	-1.26	1.600	-0.058	-0.48
8LEC6T	X	0.5020	-1.016	-10.80	0.5020	-1.156	-9.57
9ZNRCG		1.460	-0.058	-0.62	1.608	-0.050	-0.42
AZX4D8		1.490	-0.028	-0.30	1.630	-0.028	-0.24
BDDLJF		1.500	-0.018	-0.19	1.630	-0.028	-0.24
BKR6AL		1.530	0.012	0.13	1.670	0.012	0.10
CUZGE4		1.448	-0.070	-0.75	1.539	-0.119	-0.99
EMCKKC		1.530	0.012	0.13	1.680	0.022	0.18
G2L8L7		1.670	0.152	1.61	1.880	0.222	1.83
GULMUU	X	5.455	3.937	41.86	3.729	2.071	17.14
H3KBKY		1.590	0.072	0.76	1.650	-0.008	-0.07
HGQY2F		1.360	-0.158	-1.68	1.550	-0.108	-0.90
HQP6NF	M	No Data Reported			0.9100	-0.748	-6.20
KFMGVA	*	1.670	0.152	1.61	1.960	0.302	2.50
KP3PY3		1.594	0.076	0.81	1.671	0.012	0.10
KPZXRW	*	1.250	-0.268	-2.85	1.308	-0.350	-2.90
L2BTGH	X	2.280	0.762	8.10	1.950	0.292	2.41
LAWZZH		1.550	0.032	0.34	1.760	0.102	0.84
LTRNBD		1.545	0.027	0.29	1.679	0.021	0.17
N3MWVU		1.640	0.122	1.30	1.670	0.012	0.10
NKL8KJ		1.508	-0.010	-0.11	1.684	0.026	0.21
UT4XZ7		1.510	-0.008	-0.09	1.610	-0.048	-0.40
VYJMTQ		1.462	-0.056	-0.60	1.621	-0.037	-0.31

Summary Statistics

	Sample F59	Sample F60
Grand Means	1.518	1.658
Stnd Dev Btwn Labs	0.094	0.121

Samples F59, F60 : ASTM A1008 - 14G, ASTM A1008 - 16G

Statistics based on 25 of 29 reporting participants

Comments on Assigned Data Flags for Test #133

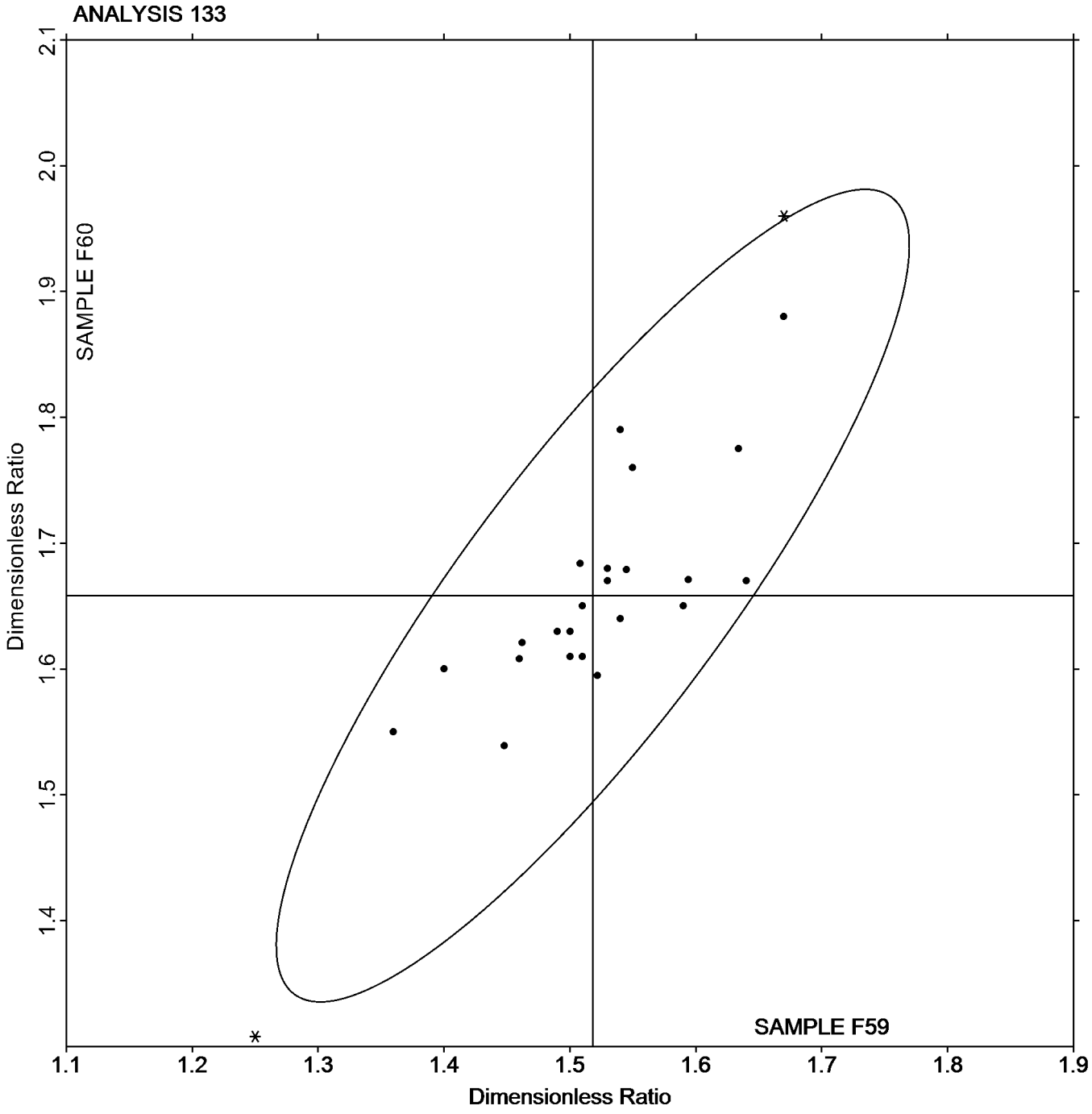
8LEC6T (X) - Data for both samples are low.

GULMUU (X) - Data for both samples are very high.

HQP6NF (M) - Participant did not submit data for sample F59.

L2BTGH (X) - Data for sample F59 are high.

SAMPLE F59	SAMPLE F60
1.518	1.658



		Sample F59			Sample F60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
26WPPH		0.1913	0.0029	0.52	0.2368	0.0092	0.92
2FXCGE		0.1880	-0.0004	-0.07	0.2420	0.0143	1.44
2KYB9H	M	No Data Reported			0.2000	-0.0277	-2.77
2VNDAY	*	0.2030	0.0146	2.64	0.2210	-0.0067	-0.67
2WYLBZ		0.1790	-0.0094	-1.69	0.2340	0.0063	0.64
2ZHEAT		0.1850	-0.0034	-0.61	0.2350	0.0073	0.74
49XDQ2		0.1800	-0.0084	-1.51	0.2400	0.0123	1.24
4D47B9		0.1840	-0.0044	-0.79	0.2130	-0.0147	-1.47
4HRG2P		0.1956	0.0072	1.31	0.2298	0.0021	0.22
4K6HAQ		0.1980	0.0096	1.74	0.2270	-0.0007	-0.07
7BWLRG		0.1900	0.0016	0.29	0.2400	0.0123	1.24
7TUR44	X	0.4110	0.2226	40.25	0.4340	0.2063	20.64
7YHPDC	X	0.2080	0.0196	3.55	0.2530	0.0253	2.54
8BVX4B	X	0.1400	-0.0484	-8.75	0.2300	0.0023	0.24
8LEC6T	X	0.5020	0.3136	56.70	0.5020	0.2743	27.45
9ZNRCG		0.1880	-0.0004	-0.07	0.2200	-0.0077	-0.77
AZ9TUG		0.1890	0.0006	0.11	0.2240	-0.0037	-0.37
AZX4D8		0.1890	0.0006	0.11	0.2420	0.0143	1.44
BCZKAE		0.1955	0.0071	1.29	0.2258	-0.0019	-0.19
BDDLJF		0.1920	0.0036	0.66	0.2480	0.0203	2.04
BKR6AL		0.1820	-0.0064	-1.15	0.2130	-0.0147	-1.47
CUW2YG		0.1855	-0.0029	-0.52	0.2228	-0.0049	-0.49
CUZGE4		0.1920	0.0036	0.66	0.2200	-0.0077	-0.77
DXEF3H		0.1850	-0.0034	-0.61	0.2340	0.0063	0.64
EDLRE8		0.1840	-0.0044	-0.79	0.2280	0.0003	0.03
EMCKKC		0.1800	-0.0084	-1.51	0.2360	0.0083	0.84
G2L8L7	X	0.1700	-0.0184	-3.32	0.2500	0.0223	2.24
GRC83J		0.1832	-0.0052	-0.94	0.2404	0.0127	1.28
GULMUU	X	0.4380	0.2496	45.13	0.7830	0.5553	55.56
H3KBKY		0.1910	0.0026	0.47	0.2180	-0.0097	-0.97
HG7QNX		0.1866	-0.0018	-0.32	0.2182	-0.0095	-0.95
HGQY2F		0.1830	-0.0054	-0.97	0.2130	-0.0147	-1.47
HQP6NF	X	0.1310	-0.0574	-10.37	0.1703	-0.0574	-5.74
HUVL7J	X	0.1690	-0.0194	-3.50	0.1940	-0.0337	-3.37
JK8HLB		0.1893	0.0009	0.17	0.2309	0.0032	0.33
KFMGVA		0.1920	0.0036	0.66	0.2180	-0.0097	-0.97
KP3PY3		0.1868	-0.0016	-0.29	0.2174	-0.0103	-1.03
KPZXRW		0.1930	0.0046	0.84	0.2430	0.0153	1.54
L2BTGH		0.1900	0.0016	0.29	0.2200	-0.0077	-0.77
LAWZZH		0.1930	0.0046	0.84	0.2230	-0.0047	-0.47
LTRNBD		0.1880	-0.0004	-0.07	0.2230	-0.0047	-0.47
N3MWVU		0.1820	-0.0064	-1.15	0.2260	-0.0017	-0.17
NKL8KJ	X	0.1616	-0.0268	-4.84	0.2308	0.0031	0.32
Q7FU2P		0.2012	0.0128	2.32	0.2267	-0.0010	-0.10
UT4XZ7		0.1860	-0.0024	-0.43	0.2370	0.0093	0.94
VUTLXR		0.1830	-0.0054	-0.97	0.2130	-0.0147	-1.47
VYJMTQ		0.1860	-0.0024	-0.43	0.2150	-0.0127	-1.27

WebCode	Data Flag	Sample F59 Lab Mean	Sample F59 Diff. from Grand Mean	Sample F59 CPV	Sample F60 Lab Mean	Sample F60 Diff. from Grand Mean	Sample F60 CPV
W8CQHT		0.1896	0.0012	0.22	0.2236	-0.0041	-0.41
ZGXTF7		0.1870	-0.0014	-0.25	0.2400	0.0123	1.24

Summary Statistics

	Sample F59	Sample F60
Grand Means	0.1884	0.2277
Stnd Dev Btwn Labs	0.0055	0.0100

Samples F59, F60 : ASTM A1008 - 14G, ASTM A1008 - 16G

Statistics based on 39 of 49 reporting participants

Comments on Assigned Data Flags for Test #134

2KYB9H (M) - Participant did not submit data for sample F59.

7TUR44 (X) - Data for both samples are high.

7YHPDC (X) - Data for sample F59 are high.

8BVX4B (X) - Data for sample F59 are low.

8LEC6T (X) - Data for both samples are very high.

G2L8L7 (X) - Data for sample F59 are low.

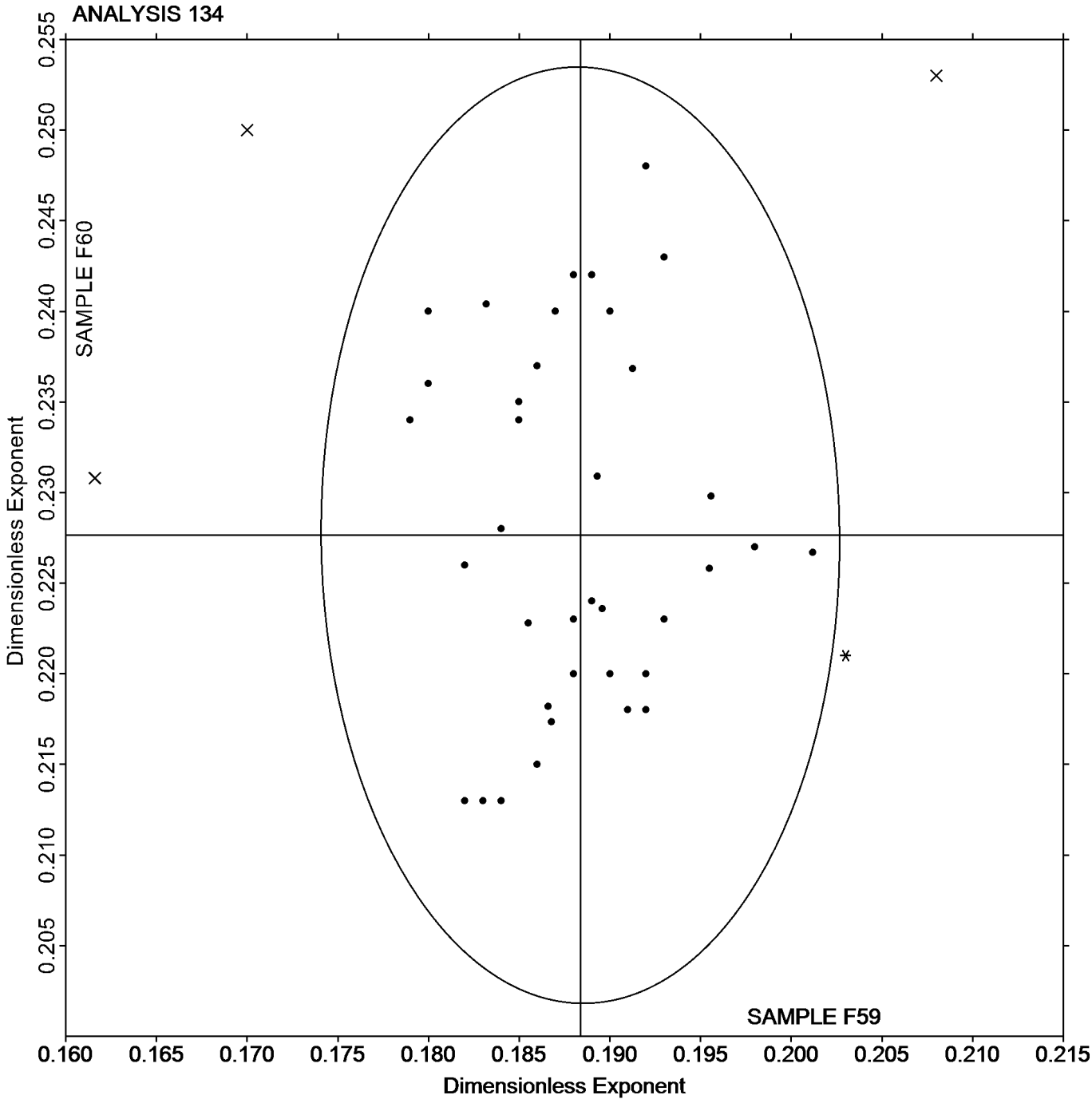
GULMUU (X) - Data for both samples are high.

HQP6NF (X) - Data for both samples are low.

HUVL7J (X) - Data for both samples are low.

NKL8KJ (X) - Data for sample F59 are low.

SAMPLE F59	SAMPLE F60
0.1884	0.2277



		Sample E59			Sample E60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2KYB9H		77.08	-0.70	-1.21	73.29	-0.07	-0.14
2UD37N		77.38	-0.39	-0.69	73.10	-0.26	-0.53
33FGRU		77.76	-0.01	-0.02	73.12	-0.24	-0.49
3DJ8EA		78.00	0.23	0.39	74.00	0.64	1.31
49XDQ2		78.04	0.27	0.46	72.84	-0.52	-1.06
4K6HAQ		77.90	0.13	0.22	73.60	0.24	0.49
4Q4AA8		77.68	-0.09	-0.16	73.52	0.16	0.33
4RB3VL		77.28	-0.49	-0.86	73.08	-0.28	-0.57
4YWKJ3	*	78.30	0.53	0.92	72.60	-0.76	-1.55
9HNTEE		78.02	0.25	0.43	73.12	-0.24	-0.49
9JUA78		78.56	0.79	1.37	73.58	0.22	0.45
9XQN4F		77.64	-0.13	-0.23	72.86	-0.50	-1.02
AMNM6G		78.84	1.07	1.86	74.14	0.78	1.60
BAE8VQ		77.84	0.07	0.12	73.16	-0.20	-0.41
BHPN8W		77.78	0.01	0.01	73.38	0.02	0.04
DU7U8G		78.70	0.93	1.61	74.32	0.96	1.97
E3JJNA		78.08	0.31	0.53	73.72	0.36	0.74
EKPVGB	*	77.00	-0.77	-1.35	74.00	0.64	1.31
ELDAQV		78.38	0.61	1.06	73.84	0.48	0.99
F4FEQC		78.00	0.23	0.39	73.18	-0.18	-0.37
GKDX26		78.48	0.71	1.23	74.18	0.82	1.68
GRC83J		78.18	0.41	0.71	73.56	0.20	0.41
GULMUU		77.60	-0.17	-0.30	73.00	-0.36	-0.73
H7F4JV		77.38	-0.39	-0.69	73.16	-0.20	-0.41
HB2EXZ		78.28	0.51	0.88	73.98	0.62	1.27
HU34E4		78.28	0.51	0.88	73.82	0.46	0.94
HVKWWC		77.56	-0.21	-0.37	73.00	-0.36	-0.73
JKMBAD		77.64	-0.13	-0.23	72.64	-0.72	-1.47
JKQW3F		78.56	0.79	1.37	74.14	0.78	1.60
K74GJT		77.22	-0.55	-0.96	73.06	-0.30	-0.61
LLMFJ4		77.14	-0.63	-1.10	72.66	-0.70	-1.43
N2JLFR		77.62	-0.15	-0.27	73.16	-0.20	-0.41
N8ZU9A		77.44	-0.33	-0.58	73.36	0.00	0.00
N9PCV3		78.18	0.41	0.71	73.48	0.13	0.26
P6VTCP		78.44	0.67	1.16	74.02	0.66	1.35
PWKQQP		76.68	-1.09	-1.91	72.92	-0.44	-0.90
Q3DWQW		77.10	-0.67	-1.17	72.50	-0.86	-1.76
TDRQ42		76.74	-1.03	-1.80	72.57	-0.79	-1.62
ULLMQB		76.82	-0.95	-1.66	73.16	-0.20	-0.41
W7MGBD		78.04	0.27	0.46	73.32	-0.04	-0.08
XZVE38		78.22	0.45	0.78	73.88	0.52	1.07
Y4J6HU		77.80	0.03	0.05	73.12	-0.24	-0.49
YA9LRY		76.62	-1.15	-2.01	73.28	-0.08	-0.16

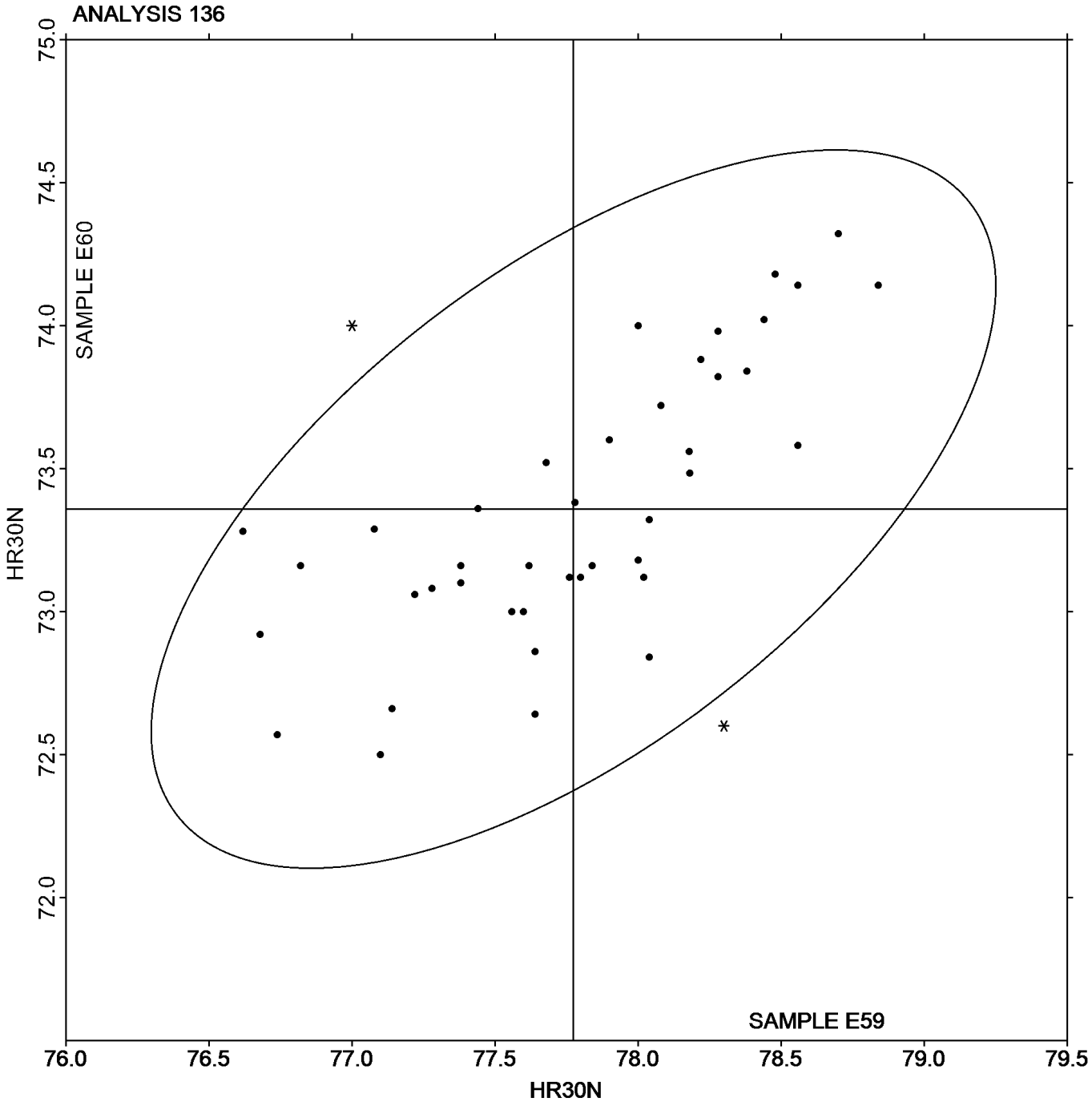
Summary Statistics

	Sample E59		Sample E60	
Grand Means	77.77	HR30N	73.36	HR30N
Stnd Dev Btwn Labs	0.57	HR30N	0.49	HR30N

Samples E59, E60 : Steel, Steel

Statistics based on 43 of 43 reporting participants

SAMPLE E59	SAMPLE E60
77.77 HR30N	73.36 HR30N



		Sample W59			Sample W60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
293CD7		0.000300	0.000008	0.21	0.000231	0.000024	0.62
2THWUG		0.000272	-0.000020	-0.56	0.000192	-0.000014	-0.37
38P29Y		0.000292	-0.000001	-0.03	0.000291	0.000084	2.15
4KQ2HU		0.000231	-0.000062	-1.68	0.000212	0.000005	0.13
6T78HE		0.000302	0.000010	0.26	0.000196	-0.000011	-0.28
6YUH8W		0.000358	0.000066	1.78	0.000238	0.000032	0.81
8NBARE		0.000270	-0.000022	-0.61	0.000260	0.000054	1.37
9FKWVC		0.000266	-0.000027	-0.73	0.000187	-0.000020	-0.51
BKGMMF		0.000308	0.000016	0.42	0.000182	-0.000024	-0.63
BTRUGX		0.000247	-0.000045	-1.23	0.000183	-0.000024	-0.60
CE24QE		0.000336	0.000044	1.18	0.000210	0.000004	0.09
FFYXCK		0.000300	0.000008	0.20	0.000200	-0.000006	-0.17
GDN744		0.000252	-0.000040	-1.10	0.000197	-0.000009	-0.24
GKDX26		0.000278	-0.000014	-0.39	0.000184	-0.000022	-0.57
GRC83J		0.000340	0.000048	1.29	0.000280	0.000074	1.88
GWLMC8		0.000296	0.000004	0.10	0.000158	-0.000048	-1.23
HB2EXZ	M	0.000300	0.000008	0.20	No Data Reported		
KKZVG2		0.000275	-0.000017	-0.46	0.000138	-0.000069	-1.76
MM7XXG		0.000329	0.000037	1.00	0.000200	-0.000006	-0.17
TZNT6F		0.000220	-0.000073	-1.97	0.000205	-0.000002	-0.04
VGNXW6		0.000272	-0.000020	-0.56	0.000148	-0.000058	-1.49
VJ8DKB		0.000319	0.000026	0.71	0.000179	-0.000028	-0.71
VPWPLY		0.000346	0.000054	1.45	0.000258	0.000052	1.32
YDCP7N		0.000318	0.000026	0.69	0.000222	0.000016	0.40

Summary Statistics

	Sample W59		Sample W60	
Grand Means	0.000292	inches	0.000206	inches
Stnd Dev Btwn Labs	0.000037	inches	0.000039	inches

Samples W59, W60 : Ti 6Al-4V, Ti CP2

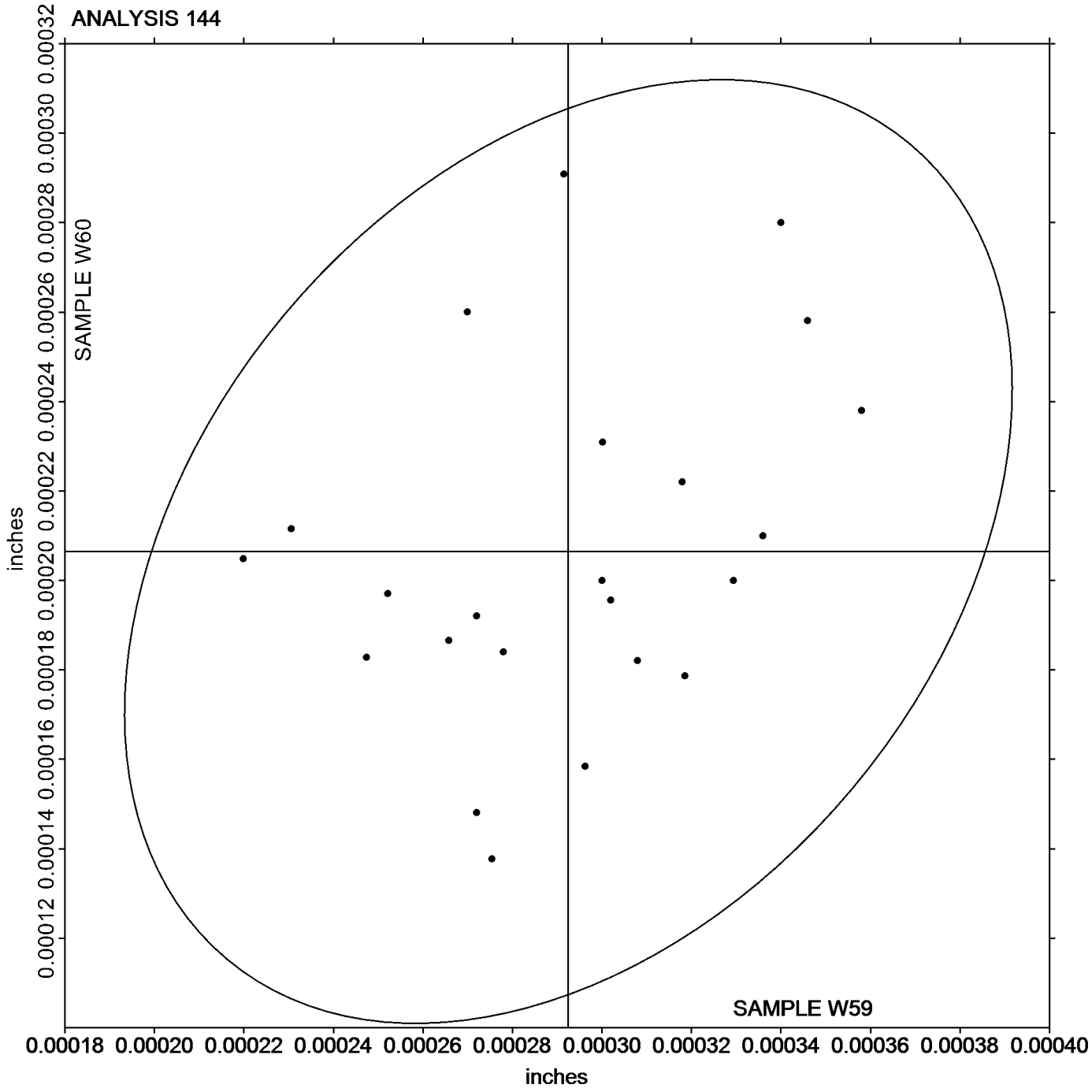
Statistics based on 23 of 24 reporting participants

Comments on Assigned Data Flags for Test #144

HB2EXZ (M) - Participant did not submit data for sample W60.

SAMPLE W59
0.00029 inches

SAMPLE W60
0.00021 inches



		Sample Y59			Sample Y60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
27H8CN		9.68	0.23	0.35	6.02	0.32	0.47	General Intercept
2THWUG	*	11.00	1.55	2.35	7.00	1.30	1.92	Comparison Method
2V3GBX	*	8.57	-0.88	-1.34	7.25	1.55	2.29	Automatic Image Analysis
2WYLBZ		9.72	0.27	0.41	5.80	0.10	0.15	General Intercept
3B89NL		9.62	0.17	0.26	5.35	-0.35	-0.52	Abrams Three-Circle
3BNFWP		8.00	-1.45	-2.20	5.50	-0.20	-0.30	Comparison Method
42NF9W		9.54	0.09	0.14	6.44	0.74	1.09	Automatic Image Analysis
4B9B3X		10.00	0.55	0.83	7.00	1.30	1.92	Comparison Method
8BVX4B		9.72	0.27	0.41	5.34	-0.36	-0.53	Abrams Three-Circle
8DXVDH		10.00	0.55	0.83	6.50	0.80	1.18	Comparison Method
9T9WNY		9.50	0.05	0.07	6.00	0.30	0.44	General Intercept
B7D7T9		9.60	0.15	0.23	5.40	-0.30	-0.44	Comparison Method
BDDLJF		9.60	0.15	0.23	6.20	0.50	0.74	Comparison Method
BKGMMF		10.10	0.65	0.98	7.10	1.40	2.06	Comparison Method
DBER6M	X	6.70	-2.75	-4.17	3.70	-2.00	-2.95	Comparison Method
DV83LF		9.30	-0.15	-0.23	6.40	0.70	1.03	Comparison Method
E97W6G		10.00	0.55	0.83	5.70	0.00	0.00	Comparison Method
EKPVGB		10.10	0.65	0.98	5.40	-0.30	-0.44	Comparison Method
FCETVA	X	12.00	2.55	3.87	4.60	-1.10	-1.63	Comparison Method
FFYXCK		10.00	0.55	0.83	5.00	-0.70	-1.03	Comparison Method
FGPZH9		9.10	-0.35	-0.53	6.20	0.50	0.74	Comparison Method
FHBQ79		9.30	-0.15	-0.23	5.50	-0.20	-0.30	Comparison Method
FQJZZ8		9.60	0.15	0.23	5.00	-0.70	-1.03	Comparison Method
G2L8L7		9.10	-0.35	-0.53	6.40	0.70	1.03	Abrams Three-Circle
GRC83J		9.50	0.05	0.07	7.00	1.30	1.92	Comparison Method
GT84V7		10.10	0.65	0.98	5.40	-0.30	-0.44	Comparison Method
GULMUU		8.80	-0.65	-0.99	5.78	0.08	0.12	N/A
GWLMC8		9.34	-0.11	-0.17	5.46	-0.24	-0.36	Abrams Three-Circle
HDQM6F		9.40	-0.05	-0.08	5.50	-0.20	-0.30	Comparison Method
HF9C4L	X	8.86	-0.59	-0.90	8.14	2.44	3.60	General Intercept
KBEPQP		11.00	1.55	2.35	6.10	0.40	0.59	Comparison Method
KFXLRK		9.00	-0.45	-0.68	5.80	0.10	0.15	Comparison Method
KNYA6Q		10.00	0.55	0.83	5.00	-0.70	-1.03	Comparison Method
LLMFJ4		9.40	-0.05	-0.08	6.20	0.50	0.74	Comparison Method
MM7XXG		10.10	0.65	0.98	4.90	-0.80	-1.18	Comparison Method
N9PCV3		9.40	-0.05	-0.07	5.44	-0.26	-0.39	N/A
NHJ9CB		10.80	1.35	2.05	6.00	0.30	0.44	Comparison Method
NKL8KJ		9.37	-0.08	-0.12	4.45	-1.25	-1.85	Abrams Three-Circle
NPVMU8		9.23	-0.22	-0.34	5.46	-0.25	-0.36	Abrams Three-Circle
P7T478		8.80	-0.65	-0.99	4.80	-0.90	-1.33	Planimetric (Jeffries)
PWW2B3		9.75	0.30	0.45	5.86	0.16	0.23	Automatic Image Analysis
PX6C87		9.56	0.11	0.17	6.24	0.54	0.80	Abrams Three-Circle
PXCP89		8.50	-0.95	-1.44	4.80	-0.90	-1.33	Comparison Method
RAVK6Y		9.31	-0.14	-0.21	5.67	-0.03	-0.05	N/A
RJTU38		9.50	0.05	0.07	5.00	-0.70	-1.03	Comparison Method
TZNT6F		8.40	-1.05	-1.59	4.80	-0.90	-1.33	Comparison Method
U3L8WQ		9.32	-0.13	-0.20	5.66	-0.04	-0.06	General Intercept

		Sample Y59			Sample Y60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
UNDJE6		8.00	-1.45	-2.20	5.60	-0.10	-0.15	Comparison Method
URC2BC	X	6.20	-3.25	-4.93	4.90	-0.80	-1.18	Comparison Method
VEV864	*	8.00	-1.45	-2.20	4.20	-1.50	-2.22	Comparison Method
VGNXW6		9.00	-0.45	-0.68	5.60	-0.10	-0.15	Comparison Method
VKA8WA		9.50	0.05	0.07	5.64	-0.06	-0.09	Comparison Method
W6FYTT		9.70	0.25	0.38	6.30	0.60	0.88	Abrams Three-Circle
WRLQP9		8.60	-0.85	-1.29	4.90	-0.80	-1.18	Planimetric (Jeffries)
WV372L	X	5.60	-3.85	-5.84	9.40	3.70	5.46	Comparison Method
WWWV6E		8.60	-0.85	-1.29	5.00	-0.70	-1.03	Comparison Method
X87XWQ		9.90	0.45	0.68	5.10	-0.60	-0.89	Comparison Method
YFMTTB		9.86	0.41	0.62	6.00	0.30	0.44	Abrams Three-Circle
Z3NT8M		8.90	-0.55	-0.84	5.70	0.00	0.00	Comparison Method
ZND4HT		10.00	0.55	0.83	5.70	0.00	0.00	Comparison Method

Summary Statistics

	Sample Y59		Sample Y60	
Grand Means	9.45	ASTM Grain Size	5.70	ASTM Grain Size
Stnd Dev Btwn Labs	0.66	ASTM Grain Size	0.68	ASTM Grain Size

Samples Y59, Y60 : AISI 304L, AISI 304L

Statistics based on 55 of 60 reporting participants

Comments on Assigned Data Flags for Test #147

DBER6M (X) - Data for both samples are low.

FCETVA (X) - Data for sample Y59 are high.

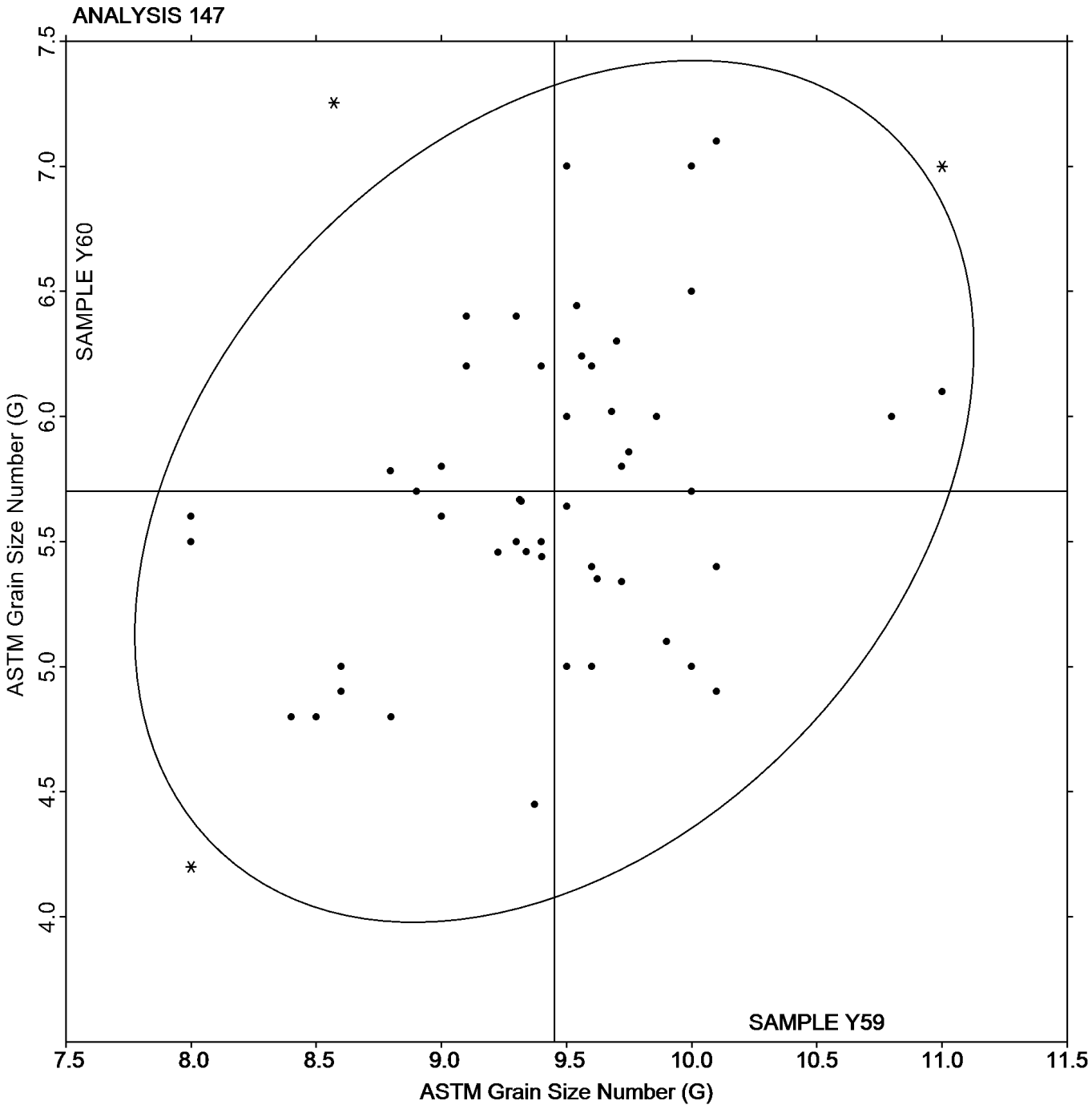
HF9C4L (X) - Data for sample Y60 are high.

URC2BC (X) - Data for sample Y59 are low.

WV372L (X) - Data appear to be transposed between samples.

SAMPLE Y59
9.45 ASTM Grain Size Number (G)

SAMPLE Y60
5.70 ASTM Grain Size Number (G)



WebCode	Data Flag	Sample K59 Lab Mean	Sample K59 Diff. from Grand Mean	Sample K59 CPV	Sample K60 Lab Mean	Sample K60 Diff. from Grand Mean	Sample K60 CPV
4PJ4GM		0.000316	-0.000015	-0.09	0.000547	0.000082	0.44
7EPTTC	X	0.00313	0.002800	16.26	0.000816	0.000351	1.90
7XR8QJ		0.000200	-0.000130	-0.76	0.000820	0.000355	1.91
BTRUGX		0.000336	0.000006	0.03	0.000446	-0.000019	-0.10
FYXD66		0.000320	-0.000010	-0.06	0.000340	-0.000125	-0.67
GKDX26		0.000576	0.000246	1.43	0.000308	-0.000157	-0.85
GULMUU		0.000068	-0.000262	-1.52	0.000336	-0.000129	-0.70
HB2EXZ		0.000200	-0.000130	-0.76	0.000300	-0.000165	-0.89
HW246E		0.000662	0.000332	1.93	0.000572	0.000107	0.58
MM7XXG		0.000283	-0.000047	-0.28	0.000361	-0.000104	-0.56
TZNT6F		0.000197	-0.000133	-0.78	0.000243	-0.000222	-1.20
YDCP7N		0.000508	0.000178	1.03	0.000748	0.000283	1.53
ZLE2BA		0.000300	-0.000030	-0.18	0.000560	0.000095	0.51

Summary Statistics

	Sample K59		Sample K60	
Grand Means	0.000330	inches	0.000465	inches
Stnd Dev Btwn Labs	0.000172	inches	0.000185	inches

Samples K59, K60 : Inconel 718, Waspaloy

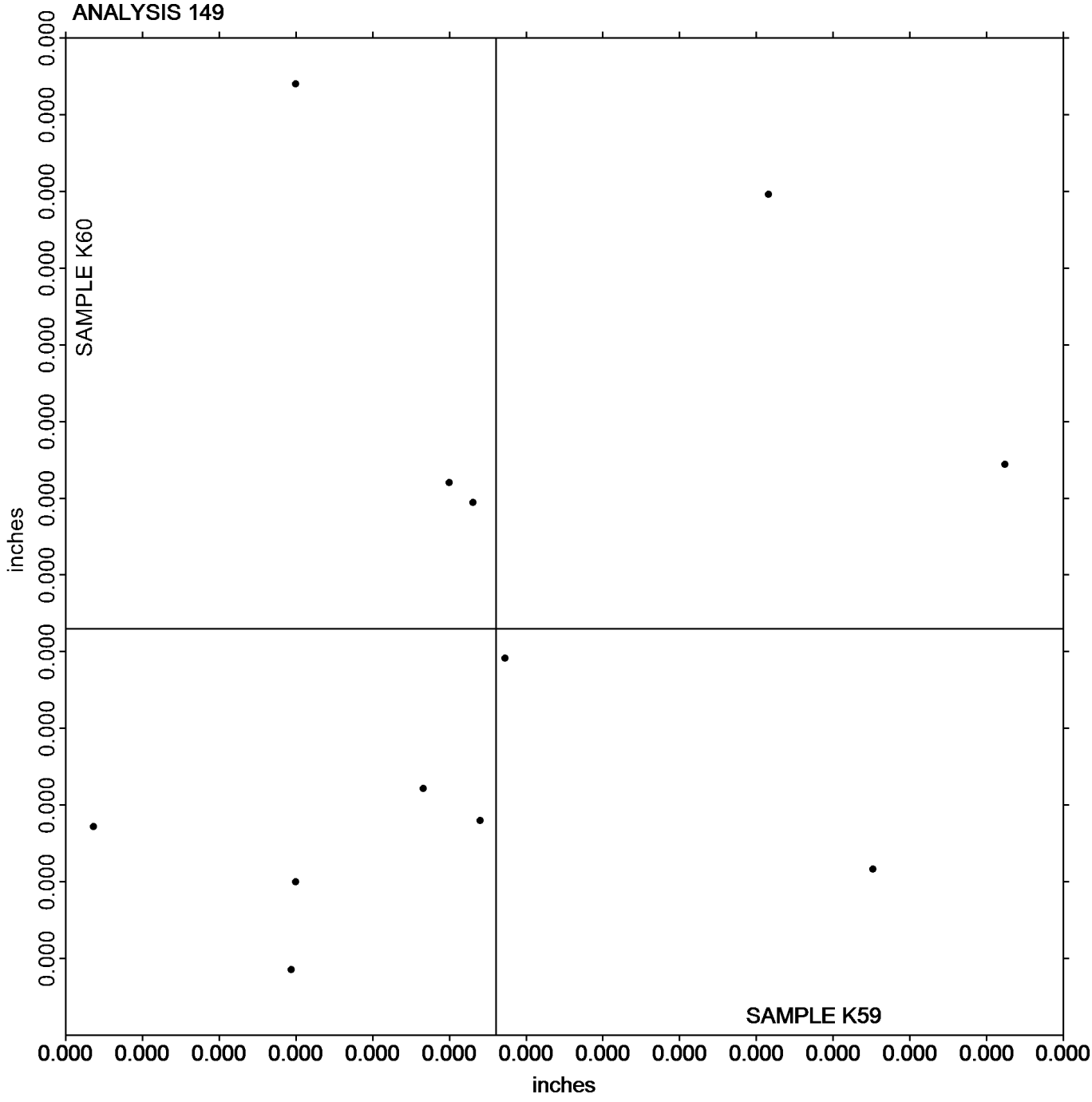
Statistics based on 12 of 13 reporting participants

Comments on Assigned Data Flags for Test #149

7EPTTC (X) - Data for Sample K59 appear to be off by a factor of ten.

SAMPLE K59
0.00033 inches

SAMPLE K60
0.00047 inches



		Sample J59			Sample J60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ	X	22.40	0.22	1.01	22.67	0.51	2.29	GD
27H8CN	*	22.73	0.56	2.51	22.77	0.61	2.73	VO
2WYLBZ		22.14	-0.04	-0.18	22.23	0.07	0.32	WD
3EJ64V	*	21.73	-0.44	-1.99	21.62	-0.54	-2.42	XX
4B9B3X		22.20	0.03	0.12	22.12	-0.04	-0.17	OE
4PJ4GM		22.28	0.11	0.47	22.25	0.09	0.40	WD
6YEQJT		22.12	-0.06	-0.25	22.14	-0.02	-0.10	WD
7UT27L		22.43	0.26	1.16	22.32	0.17	0.75	OE
7YHPDC	X	24.82	2.65	11.91	24.91	2.75	12.36	IC
8NBARE		22.25	0.07	0.32	22.28	0.12	0.53	OE
8XJN6Z		22.39	0.21	0.96	22.40	0.24	1.09	DR
BAE8VQ		21.89	-0.29	-1.29	21.80	-0.36	-1.61	OE
E78HXL		22.18	0.01	0.03	22.14	-0.02	-0.10	IC
EDLRE8		22.08	-0.09	-0.42	22.10	-0.06	-0.26	DR
F8B6WN		22.34	0.16	0.73	22.30	0.14	0.62	OE
FBFRMX		22.17	-0.01	-0.04	22.14	-0.01	-0.06	WD
FYXD66		22.12	-0.06	-0.25	22.14	-0.02	-0.10	XR
GULMUU		22.27	0.09	0.41	22.18	0.02	0.10	OE
HMFB34		22.39	0.21	0.96	22.35	0.19	0.86	OE
KBEPQP		22.17	0.00	-0.01	22.22	0.06	0.26	WD
KG7YAL		22.20	0.02	0.11	22.21	0.05	0.23	XR
KNYA6Q		22.26	0.08	0.36	22.19	0.04	0.16	OE
LAVUD9		21.71	-0.47	-2.10	21.73	-0.43	-1.94	OE
MFQA6Z		21.59	-0.59	-2.65	21.63	-0.53	-2.37	OE
MU2TN2		22.13	-0.05	-0.21	22.18	0.02	0.09	OE
P6CEFZ		22.29	0.11	0.51	22.29	0.13	0.59	WD
P6VTCP		22.23	0.06	0.26	22.17	0.01	0.04	OE
QT6KCE		22.21	0.03	0.14	22.17	0.01	0.04	OE
R44HXT		22.28	0.11	0.48	22.28	0.12	0.53	OE
RJTU38		22.37	0.19	0.86	22.20	0.04	0.19	IC
TVMGWA		22.12	-0.05	-0.24	22.13	-0.02	-0.11	OE
U2QT7R		22.40	0.22	0.98	22.40	0.24	1.07	OE
VJ8DKB		21.81	-0.36	-1.63	21.79	-0.36	-1.64	OE
VLJCAY		22.05	-0.13	-0.58	22.11	-0.05	-0.23	IC
X6LFX7		22.15	-0.02	-0.10	22.13	-0.03	-0.13	IC
XVGWKP		22.15	-0.03	-0.13	22.15	-0.01	-0.04	WD
YCCH32	X	20.67	-1.51	-6.79	20.33	-1.82	-8.20	OE
YFMTTB		22.34	0.16	0.74	22.30	0.15	0.65	OE

Summary Statistics

	Sample J59		Sample J60	
Grand Means	22.18	Percent	22.16	Percent
Stnd Dev Btwn Labs	0.22	Percent	0.22	Percent

Samples J59, J60 : Alloy 625, Alloy 625

Statistics based on 35 of 38 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
VO	Volumetric	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #150

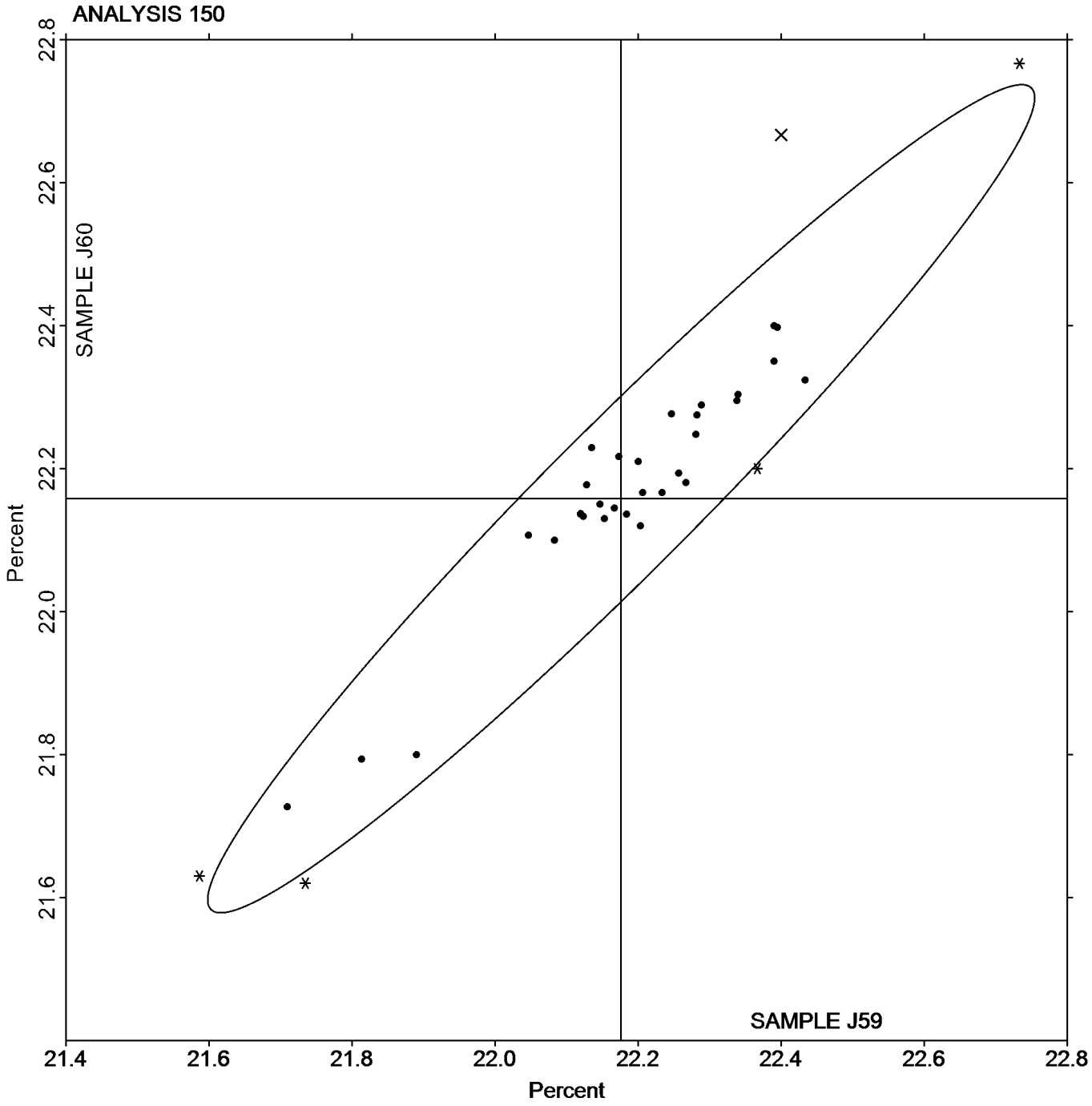
26YEVZ (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample J60.

7YHPDC (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample J59.

YCCH32 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample J60.

SAMPLE J59
22.18 Percent

SAMPLE J60
22.16 Percent



		Sample J59			Sample J60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ		0.1003	-0.0126	-1.10	0.1009	-0.0116	-1.04	GD
27H8CN		0.1193	0.0065	0.57	0.1157	0.0031	0.28	IC
2WYLBZ		0.1117	-0.0012	-0.11	0.1110	-0.0015	-0.14	WD
3EJ64V		0.1183	0.0055	0.48	0.1183	0.0058	0.52	XX
4B9B3X		0.1160	0.0031	0.28	0.1160	0.0035	0.31	OE
4PJ4GM		0.1046	-0.0082	-0.72	0.1045	-0.0080	-0.72	WD
6YEQJT		0.1099	-0.0029	-0.26	0.1093	-0.0032	-0.29	OE
7UT27L		0.1197	0.0068	0.60	0.1190	0.0065	0.58	OE
7YHPDC	X	0.1690	0.0561	4.93	0.1033	-0.0092	-0.82	IC
8NBARE		0.1127	-0.0002	-0.02	0.1120	-0.0005	-0.05	OE
8XJN6Z		0.1167	0.0038	0.33	0.1167	0.0041	0.37	DR
BAE8VQ		0.1110	-0.0019	-0.16	0.1100	-0.0025	-0.23	OE
E78HXL		0.1062	-0.0067	-0.58	0.1060	-0.0065	-0.58	IC
EDLRE8		0.1100	-0.0029	-0.25	0.1100	-0.0025	-0.23	DR
F8B6WN		0.1020	-0.0109	-0.95	0.1020	-0.0105	-0.94	OE
FBFRMX		0.1079	-0.0050	-0.44	0.1081	-0.0045	-0.40	WD
FYXD66		0.1170	0.0041	0.36	0.1170	0.0045	0.40	XR
GULMUU		0.1157	0.0028	0.25	0.1170	0.0045	0.40	OE
HMFB34		0.1083	-0.0045	-0.40	0.1087	-0.0039	-0.34	OE
KBEPQP		0.1200	0.0071	0.63	0.1163	0.0038	0.34	WD
KG7YAL		0.1100	-0.0029	-0.25	0.1100	-0.0025	-0.23	XR
KNYA6Q		0.1000	-0.0129	-1.13	0.1000	-0.0125	-1.12	OE
LAVUD9		0.1003	-0.0125	-1.10	0.1003	-0.0122	-1.09	OE
MFQA6Z	*	0.1450	0.0321	2.82	0.1430	0.0305	2.73	OE
MU2TN2		0.1057	-0.0072	-0.63	0.1050	-0.0075	-0.67	OE
P6CEFZ		0.1307	0.0178	1.56	0.1313	0.0188	1.69	WD
P6VTCP		0.1100	-0.0029	-0.25	0.1067	-0.0059	-0.52	OE
QT6KCE	*	0.1483	0.0355	3.11	0.1477	0.0351	3.15	OE
R44HXT		0.1143	0.0015	0.13	0.1143	0.0018	0.16	OE
RJTU38	*	0.1100	-0.0029	-0.25	0.1000	-0.0125	-1.12	IC
TVMGWA		0.1090	-0.0039	-0.34	0.1093	-0.0032	-0.29	OE
U2QT7R		0.1153	0.0025	0.22	0.1157	0.0031	0.28	XX
VJ8DKB		0.0988	-0.0141	-1.23	0.0990	-0.0136	-1.21	OE
VLJCAY		0.1191	0.0062	0.55	0.1203	0.0078	0.70	IC
X6LFX7		0.1117	-0.0012	-0.11	0.1120	-0.0005	-0.05	IC
XVGWKP		0.1137	0.0008	0.07	0.1140	0.0015	0.13	WD
YCCH32	X	0.1167	0.0038	0.33	0.1033	-0.0092	-0.82	OE
YFMTTB		0.0910	-0.0219	-1.92	0.0910	-0.0215	-1.93	OE

Summary Statistics

	Sample J59		Sample J60	
Grand Means	0.1129	Percent	0.1125	Percent
Stnd Dev Btwn Labs	0.0114	Percent	0.0112	Percent

Samples J59, J60 : Alloy 625, Alloy 625

Statistics based on 35 of 38 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used for Current Element		

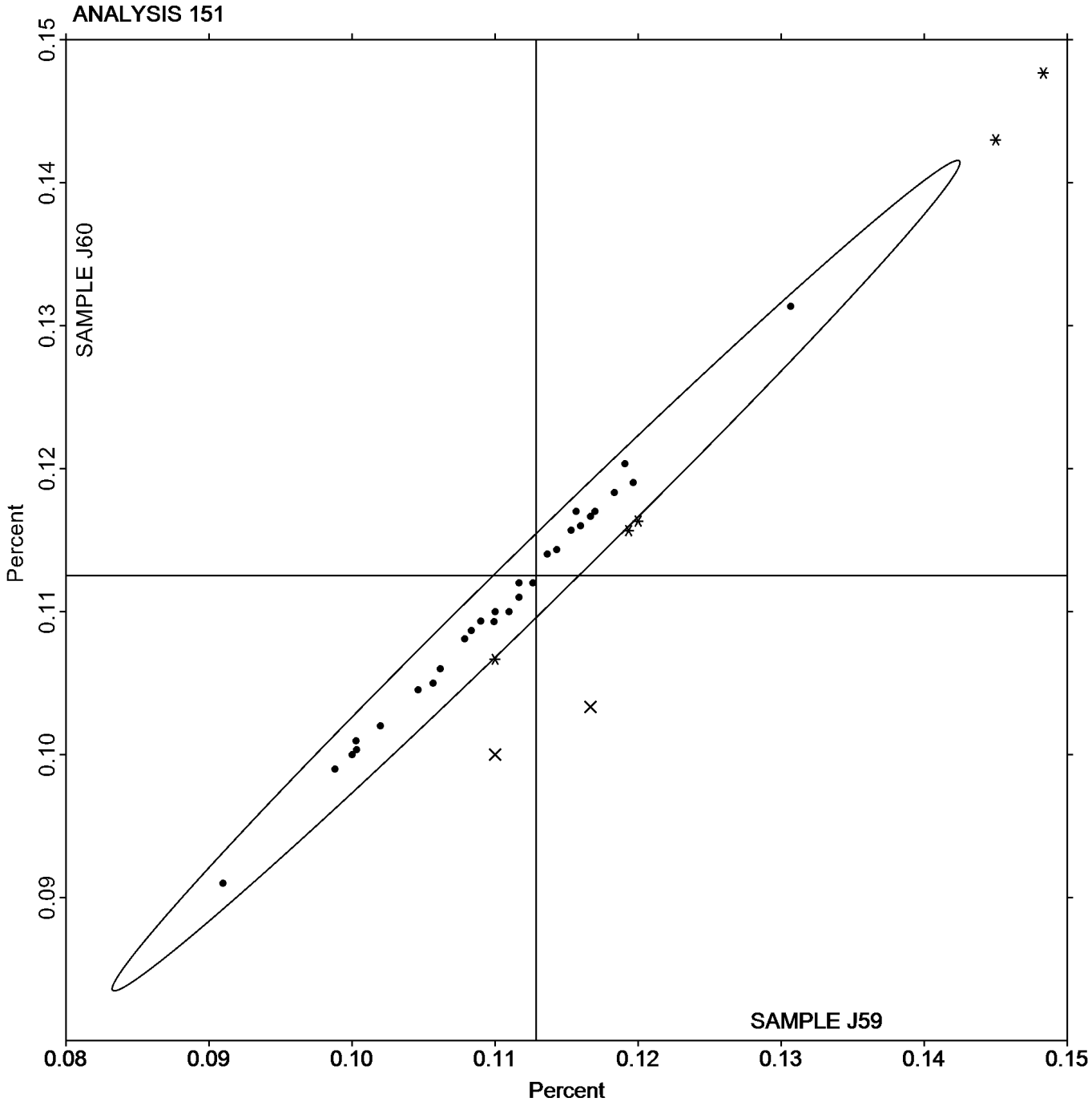
Comments on Assigned Data Flags for Test #151

7YHPDC (X) - Data for sample J59 are high. Inconsistent within the determinations of sample J59.

YCCH32 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample J59.

SAMPLE J59
0.1129 Percent

SAMPLE J60
0.1125 Percent



		Sample J59			Sample J60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ		4.940	0.115	1.39	4.967	0.136	1.63	GD
27H8CN		4.933	0.108	1.31	4.900	0.070	0.83	VO
2WYLBZ		4.800	-0.026	-0.31	4.810	-0.020	-0.24	WD
3EJ64V		4.762	-0.064	-0.77	4.806	-0.024	-0.29	XX
4B9B3X		4.850	0.025	0.30	4.863	0.033	0.39	OE
4PJ4GM		4.855	0.030	0.36	4.847	0.017	0.20	WD
6YEQJT		4.759	-0.067	-0.81	4.757	-0.073	-0.88	WD
7UT27L		4.787	-0.038	-0.46	4.772	-0.059	-0.71	OE
7YHPDC	X	6.210	1.385	16.75	4.480	-0.350	-4.20	IC
8NBARE		4.752	-0.073	-0.89	4.741	-0.089	-1.07	OE
8XJN6Z		4.617	-0.209	-2.53	4.667	-0.164	-1.97	DR
BAE8VQ	*	5.053	0.227	2.75	5.066	0.235	2.82	OE
E78HXL		4.852	0.027	0.32	4.854	0.023	0.28	IC
EDLRE8		4.873	0.048	0.58	4.907	0.076	0.91	DR
F8B6WN	X	4.429	-0.396	-4.79	4.444	-0.386	-4.64	OE
FBFRMX		4.810	-0.015	-0.19	4.805	-0.025	-0.30	WD
FYXD66		4.761	-0.064	-0.78	4.773	-0.057	-0.69	XR
GULMUU		4.783	-0.042	-0.51	4.837	0.006	0.07	OE
HMFB34		4.817	-0.009	-0.11	4.803	-0.027	-0.33	OE
KBEPQP		4.900	0.074	0.90	4.899	0.069	0.83	WD
KG7YAL		4.730	-0.095	-1.15	4.740	-0.090	-1.09	XR
KNYA6Q		4.842	0.017	0.20	4.864	0.034	0.40	OE
LAVUD9		4.849	0.024	0.29	4.883	0.053	0.63	OE
MFQA6Z		4.831	0.006	0.07	4.840	0.009	0.11	OE
MU2TN2		4.820	-0.005	-0.06	4.820	-0.010	-0.12	OE
P6CEFZ		4.769	-0.057	-0.69	4.763	-0.067	-0.81	WD
P6VTCP		4.800	-0.025	-0.31	4.800	-0.030	-0.37	OE
QT6KCE		4.737	-0.089	-1.07	4.697	-0.134	-1.61	OE
R44HXT		4.880	0.055	0.66	4.901	0.071	0.85	OE
RJTU38		4.840	0.015	0.18	4.817	-0.014	-0.17	IC
TVMGWA		4.785	-0.040	-0.49	4.787	-0.044	-0.53	OE
U2QT7R		4.831	0.006	0.07	4.812	-0.018	-0.22	OE
VJ8DKB		4.777	-0.049	-0.59	4.773	-0.057	-0.69	OE
VLJCAY		4.860	0.035	0.42	4.843	0.013	0.15	IC
X6LFX7		4.768	-0.058	-0.70	4.789	-0.041	-0.49	IC
XVGWKP		4.846	0.020	0.25	4.842	0.012	0.14	WD
YCCH32	*	5.053	0.228	2.76	5.060	0.230	2.75	OE
YFMTTB		4.793	-0.032	-0.39	4.790	-0.040	-0.49	OE

Summary Statistics

	Sample J59		Sample J60	
Grand Means	4.825	Percent	4.830	Percent
Stnd Dev Btwn Labs	0.083	Percent	0.083	Percent

Samples J59, J60 : Alloy 625, Alloy 625

Statistics based on 36 of 38 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
VO	Volumetric	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

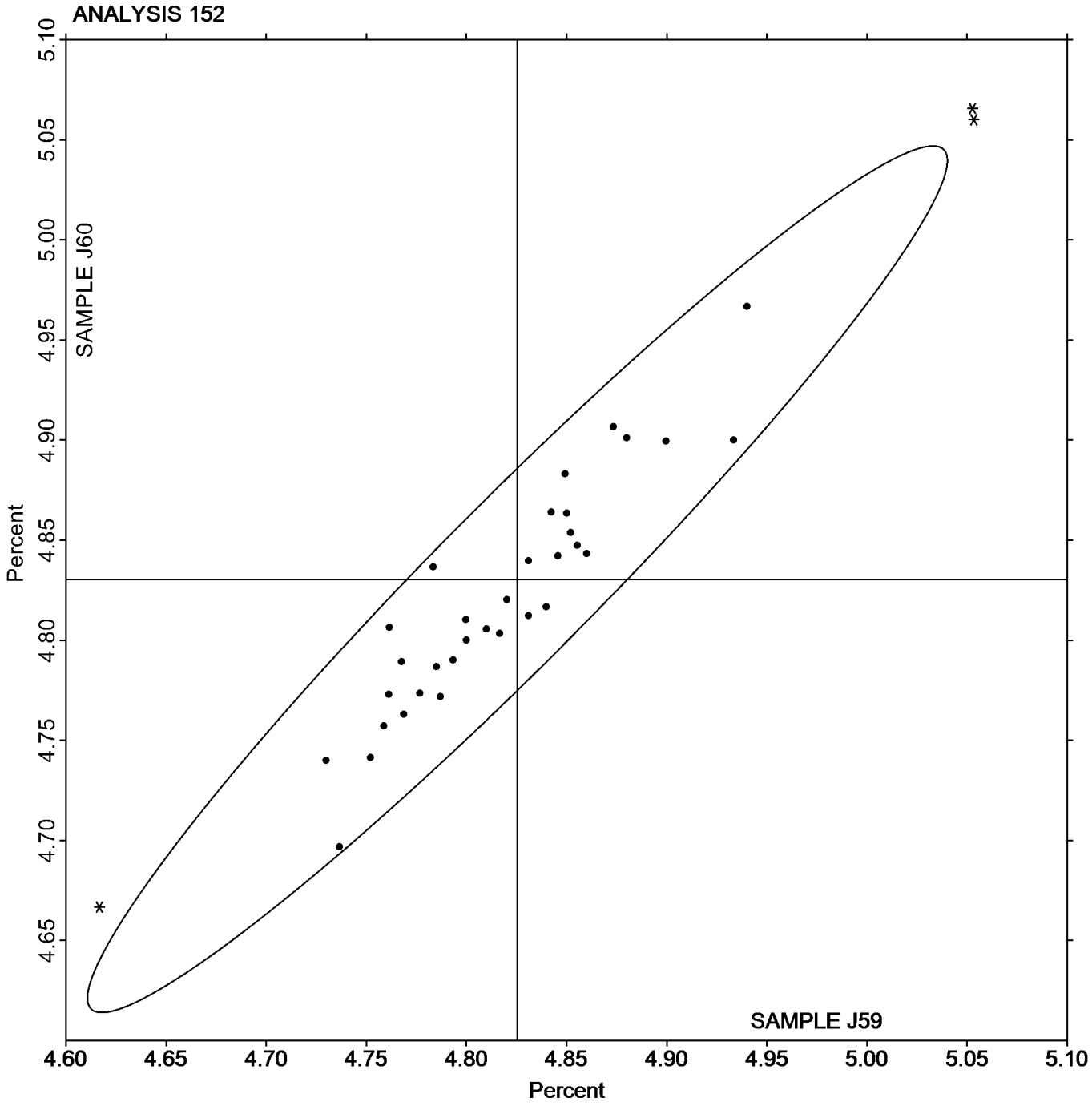
Comments on Assigned Data Flags for Test #152

7YHPDC (X) - Data for sample J59 are high and data for sample J60 are low. Inconsistent in testing between samples. Inconsistent within the determinations of sample J59.

F8B6WN (X) - Data for both samples are low. Possible Systematic Error.

SAMPLE J59
4.825 Percent

SAMPLE J60
4.830 Percent



		Sample J59			Sample J60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ		8.847	-0.208	-1.10	8.817	-0.230	-1.14	GD
27H8CN		8.600	-0.455	-2.39	8.567	-0.480	-2.37	VO
2WYLBZ		9.034	-0.021	-0.11	9.034	-0.012	-0.06	WD
3EJ64V		9.011	-0.044	-0.23	8.989	-0.058	-0.29	XX
4B9B3X		9.043	-0.012	-0.06	9.080	0.033	0.17	OE
4PJ4GM		8.966	-0.089	-0.47	8.971	-0.076	-0.38	WD
6YEQJT		9.112	0.057	0.30	9.112	0.065	0.32	WD
7UT27L	*	8.972	-0.083	-0.43	9.110	0.064	0.32	OE
7YHPDC	X	14.42	5.365	28.24	14.10	5.053	24.98	IC
8NBARE		9.105	0.050	0.26	9.084	0.038	0.19	OE
8XJN6Z		9.197	0.142	0.75	9.137	0.090	0.45	DR
BAE8VQ	*	8.540	-0.515	-2.71	8.498	-0.548	-2.71	OE
E78HXL		8.952	-0.103	-0.54	8.961	-0.085	-0.42	IC
EDLRE8		9.113	0.058	0.31	9.080	0.033	0.17	DR
F8B6WN		9.186	0.131	0.69	9.177	0.130	0.64	OE
FBFRMX		9.143	0.088	0.46	9.140	0.094	0.46	WD
FYXD66		9.111	0.056	0.30	9.114	0.067	0.33	XR
GULMUU		9.103	0.048	0.26	9.160	0.113	0.56	OE
HMFB34		8.990	-0.065	-0.34	8.997	-0.050	-0.25	OE
KBEPQP		9.084	0.029	0.16	9.071	0.025	0.12	WD
KG7YAL		9.130	0.075	0.40	9.130	0.083	0.41	XR
KNYA6Q		9.128	0.073	0.38	9.072	0.025	0.13	OE
LAVUD9		8.896	-0.159	-0.84	8.887	-0.160	-0.79	OE
MFQA6Z		9.443	0.388	2.05	9.487	0.440	2.18	OE
MU2TN2		9.123	0.068	0.36	9.154	0.108	0.53	OE
P6CEFZ		9.068	0.013	0.07	9.080	0.033	0.17	WD
P6VTCP		8.933	-0.122	-0.64	8.867	-0.180	-0.89	OE
QT6KCE		9.473	0.418	2.20	9.517	0.470	2.32	OE
R44HXT		9.149	0.094	0.50	9.155	0.108	0.54	OE
RJTU38		9.147	0.092	0.48	9.043	-0.003	-0.02	IC
TVMGWA		9.107	0.052	0.27	9.087	0.040	0.20	OE
U2QT7R		9.153	0.098	0.52	9.146	0.099	0.49	OE
VJ8DKB		9.167	0.112	0.59	9.113	0.067	0.33	OE
VLJCAY		9.003	-0.052	-0.27	9.033	-0.013	-0.07	OE
X6LFX7		9.093	0.038	0.20	9.102	0.055	0.27	IC
XVGWKP		9.080	0.025	0.13	9.081	0.035	0.17	WD
YCCH32		8.583	-0.472	-2.48	8.567	-0.480	-2.37	OE
YFMTTB		9.160	0.105	0.55	9.167	0.120	0.59	OE

Summary Statistics

	Sample J59		Sample J60	
Grand Means	9.055	Percent	9.047	Percent
Stnd Dev Btwn Labs	0.190	Percent	0.202	Percent

Samples J59, J60 : Alloy 625, Alloy 625

Statistics based on 36 of 38 reporting participants

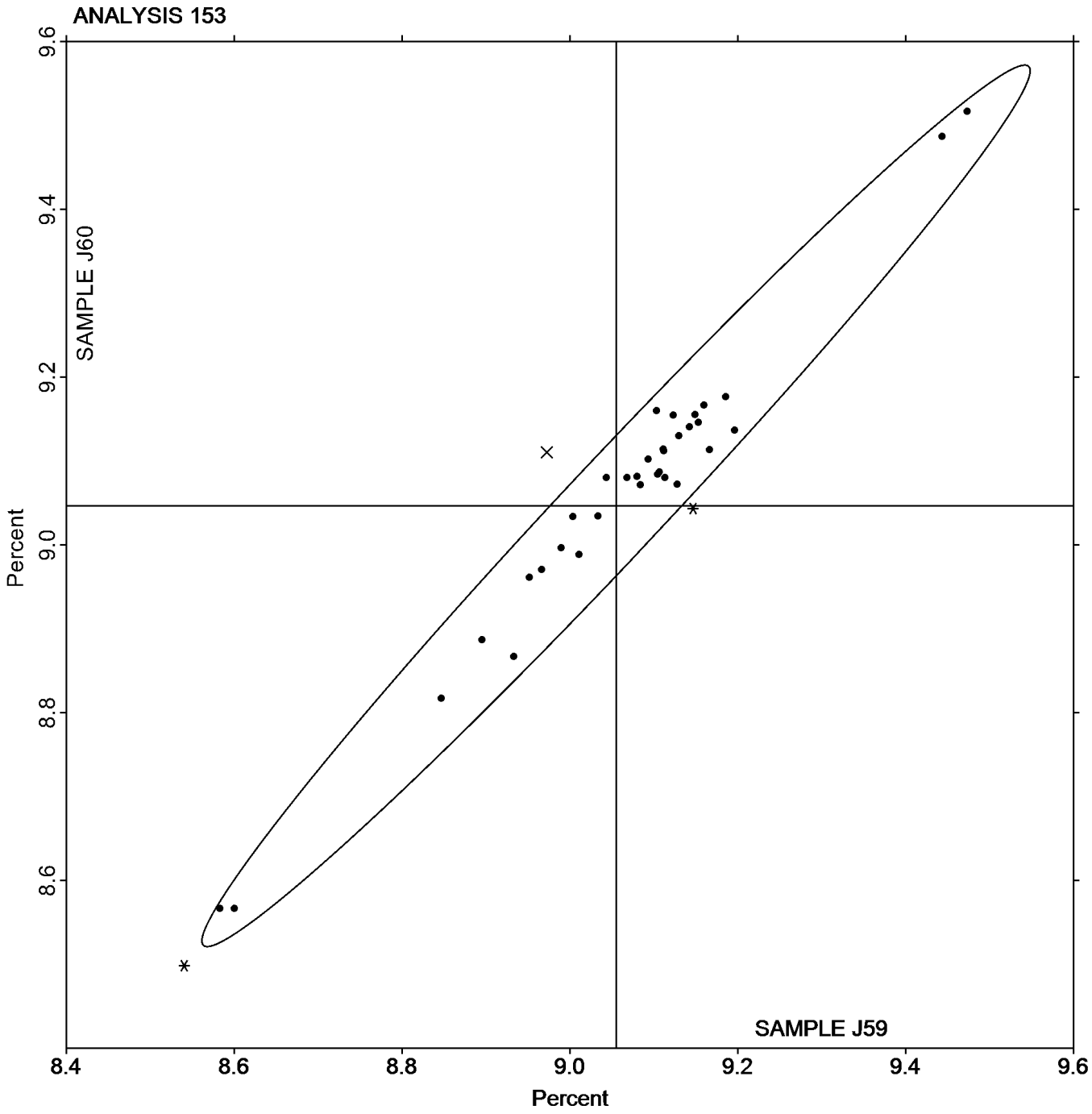
Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
VO	Volumetric	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #153

7YHPDC (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

SAMPLE J59	SAMPLE J60
9.055 Percent	9.047 Percent



		Sample J59			Sample J60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ		0.2713	-0.0050	-0.21	0.2760	-0.0031	-0.12	GD
27H8CN		0.2967	0.0203	0.83	0.2977	0.0186	0.70	IC
3EJ64V		0.3153	0.0390	1.59	0.3200	0.0409	1.55	XX
4B9B3X		0.2543	-0.0220	-0.90	0.2563	-0.0228	-0.86	OE
4PJ4GM		0.2690	-0.0074	-0.30	0.2732	-0.0059	-0.23	WD
6YEQJT		0.2810	0.0047	0.19	0.2845	0.0054	0.20	WD
7UT27L		0.2580	-0.0184	-0.75	0.2600	-0.0191	-0.72	OE
7YHPDC		0.2147	-0.0617	-2.52	0.2220	-0.0571	-2.17	IC
8NBARE		0.2773	0.0010	0.04	0.2803	0.0012	0.05	OE
8XJN6Z		0.3133	0.0370	1.51	0.3133	0.0342	1.30	DR
BAE8VQ		0.2583	-0.0180	-0.74	0.2557	-0.0234	-0.89	OE
E78HXL		0.2944	0.0181	0.74	0.2897	0.0106	0.40	IC
EDLRE8	*	0.3067	0.0303	1.24	0.3233	0.0442	1.68	DR
F8B6WN		0.2720	-0.0044	-0.18	0.2757	-0.0034	-0.13	OE
FBFRMX		0.2579	-0.0185	-0.75	0.2633	-0.0158	-0.60	WD
FYXD66		0.2827	0.0063	0.26	0.2823	0.0032	0.12	OE
GULMUU		0.2510	-0.0254	-1.04	0.2453	-0.0338	-1.28	OE
HMFB34		0.2680	-0.0084	-0.34	0.2683	-0.0108	-0.41	OE
KBEPQP	X	0.4067	0.1303	5.32	0.3163	0.0372	1.41	WD
KG7YAL	*	0.2110	-0.0654	-2.67	0.2070	-0.0721	-2.74	OE
KNYA6Q		0.2800	0.0036	0.15	0.2807	0.0016	0.06	OE
LAVUD9		0.3317	0.0553	2.26	0.3407	0.0616	2.34	OE
MFQA6Z		0.2917	0.0153	0.62	0.3007	0.0216	0.82	OE
MU2TN2		0.2810	0.0046	0.19	0.2837	0.0046	0.17	OE
P6CEFZ		0.2673	-0.0090	-0.37	0.2693	-0.0098	-0.37	OE
P6VTCP		0.2733	-0.0030	-0.12	0.2767	-0.0024	-0.09	OE
QT6KCE		0.2990	0.0226	0.92	0.3010	0.0219	0.83	OE
R44HXT		0.2690	-0.0074	-0.30	0.2700	-0.0091	-0.35	OE
RJTU38		0.2967	0.0203	0.83	0.3100	0.0309	1.17	IC
TVMGWA		0.2873	0.0110	0.45	0.2890	0.0099	0.38	OE
U2QT7R		0.2637	-0.0127	-0.52	0.2660	-0.0131	-0.50	OE
VJ8DKB		0.2813	0.0050	0.20	0.2880	0.0089	0.34	OE
VLJCAY		0.2723	-0.0040	-0.16	0.2713	-0.0078	-0.29	OE
X6LFX7		0.2960	0.0196	0.80	0.2940	0.0149	0.57	IC
XVGWKP		0.2693	-0.0070	-0.29	0.2703	-0.0088	-0.33	WD
YCCH32	X	0.3933	0.1170	4.77	0.3933	0.1142	4.33	OE
YFMTTB		0.2600	-0.0164	-0.67	0.2633	-0.0158	-0.60	OE

Summary Statistics

	Sample J59		Sample J60	
Grand Means	0.2764	Percent	0.2791	Percent
Stnd Dev Btwn Labs	0.0245	Percent	0.0264	Percent

Samples J59, J60 : Alloy 625, Alloy 625

Statistics based on 35 of 37 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XX	Please Indicate Method Used for Current Element

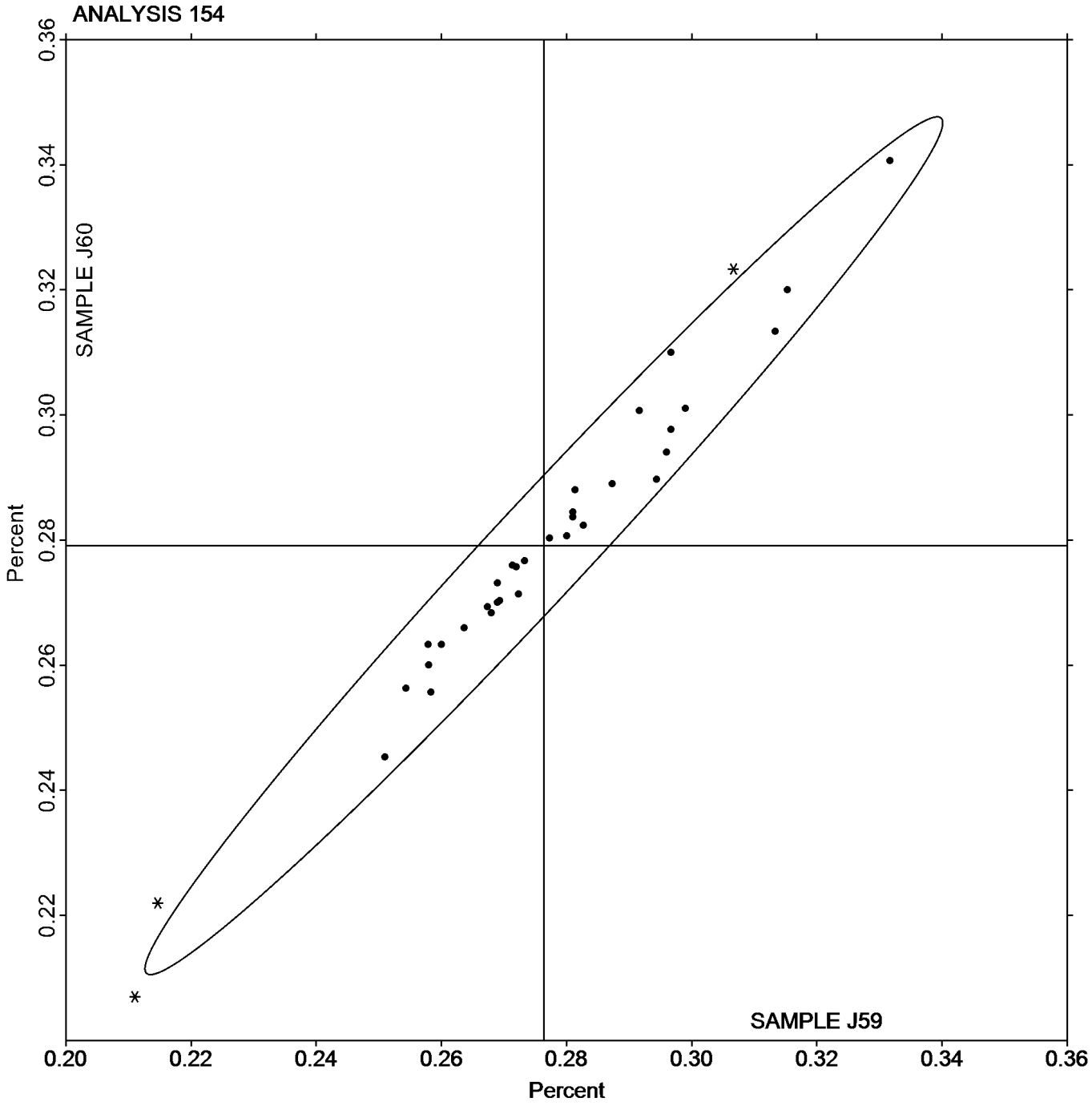
Comments on Assigned Data Flags for Test #154

KBEPQP (X) - Data for sample J59 are high.

YCCH32 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample J60.

SAMPLE J59
0.2764 Percent

SAMPLE J60
0.2791 Percent



		Sample J59			Sample J60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ		0.1070	0.0015	0.10	0.1070	0.0010	0.07	GD
27H8CN		0.0963	-0.0092	-0.65	0.0973	-0.0087	-0.59	IC
2WYLBZ		0.1023	-0.0032	-0.23	0.1047	-0.0013	-0.09	XX
3EJ64V		0.1027	-0.0029	-0.20	0.1020	-0.0040	-0.27	XX
4B9B3X	X	0.1913	0.0858	6.02	0.1917	0.0857	5.87	OE
4PJ4GM		0.1069	0.0013	0.09	0.1075	0.0015	0.10	WD
6YEQJT		0.1019	-0.0037	-0.26	0.1011	-0.0049	-0.33	OE
7UT27L		0.1080	0.0025	0.17	0.1067	0.0007	0.05	OE
7YHPDC	*	0.1200	0.0145	1.01	0.1267	0.0207	1.42	XX
8NBARE		0.0993	-0.0062	-0.44	0.0980	-0.0080	-0.55	OE
8XJN6Z	X	0.1633	0.0578	4.06	0.1733	0.0673	4.62	DR
BAE8VQ		0.1043	-0.0012	-0.09	0.1033	-0.0027	-0.18	OE
EDLRE8		0.0900	-0.0155	-1.09	0.0933	-0.0127	-0.87	DR
F8B6WN		0.0800	-0.0255	-1.79	0.0810	-0.0250	-1.71	OE
FBFRMX		0.0952	-0.0103	-0.72	0.0959	-0.0101	-0.69	WD
FYXD66		0.1087	0.0031	0.22	0.1043	-0.0017	-0.11	OE
GULMUU		0.0943	-0.0112	-0.79	0.0960	-0.0100	-0.69	OE
HMFB34		0.1287	0.0231	1.62	0.1327	0.0267	1.83	OE
KBEPQP		0.1040	-0.0015	-0.11	0.1037	-0.0023	-0.16	WD
KG7YAL		0.1100	0.0045	0.31	0.1100	0.0040	0.27	XR
KNYA6Q		0.1047	-0.0009	-0.06	0.1067	0.0007	0.05	OE
LAVUD9	X	0.2053	0.0998	7.01	0.2040	0.0980	6.72	OE
MFQA6Z		0.1100	0.0045	0.31	0.1093	0.0033	0.23	OE
MU2TN2		0.1120	0.0065	0.45	0.1097	0.0037	0.25	OE
P6CEFZ		0.1187	0.0131	0.92	0.1193	0.0133	0.91	WD
P6VTCP		0.0700	-0.0355	-2.50	0.0700	-0.0360	-2.47	OE
QT6KCE	X	0.1700	0.0645	4.52	0.1720	0.0660	4.52	OE
R44HXT		0.1180	0.0125	0.87	0.1187	0.0127	0.87	OE
RJTU38		0.1100	0.0045	0.31	0.1133	0.0073	0.50	IC
TVMGWA		0.1010	-0.0045	-0.32	0.1007	-0.0053	-0.37	OE
U2QT7R		0.1010	-0.0045	-0.32	0.1010	-0.0050	-0.34	OE
VJ8DKB		0.0989	-0.0066	-0.46	0.0977	-0.0083	-0.57	OE
VLJCAY	*	0.1473	0.0418	2.93	0.1473	0.0413	2.83	OE
X6LFX7		0.1003	-0.0052	-0.37	0.1023	-0.0037	-0.25	IC
XVGWKP		0.0960	-0.0095	-0.67	0.0950	-0.0110	-0.75	OE
YCCH32	X	0.3133	0.2078	14.59	0.3267	0.2207	15.13	OE
YFMTTB		0.1300	0.0245	1.72	0.1300	0.0240	1.64	OE

Summary Statistics

	Sample J59		Sample J60	
Grand Means	0.1055	Percent	0.1060	Percent
Stnd Dev Btwn Labs	0.0142	Percent	0.0146	Percent

Samples J59, J60 : Alloy 625, Alloy 625

Statistics based on 32 of 37 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used for Current Element		

Comments on Assigned Data Flags for Test #155

4B9B3X (X) - Data for both samples are high. Possible Systematic Error.

8XJN6Z (X) - Data for both samples are high. Possible Systematic Error.

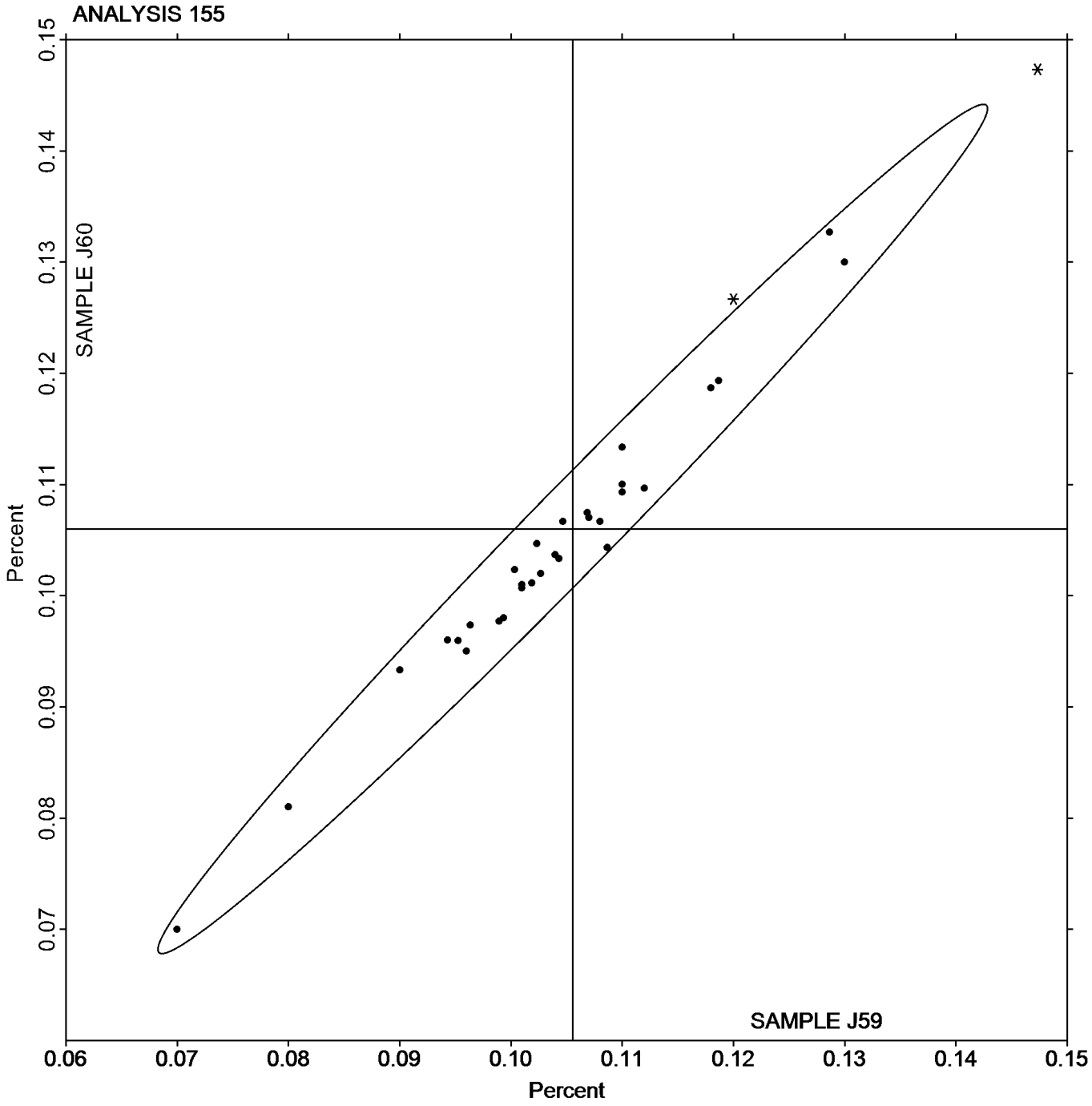
LAVUD9 (X) - Data for both samples are high. Possible Systematic Error.

QT6KCE (X) - Data for both samples are high. Possible Systematic Error.

YCCH32 (X) - Data for both samples are high. Possible Systematic Error.

SAMPLE J59
0.1055 Percent

SAMPLE J60
0.1060 Percent



		Sample J59			Sample J60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ		3.367	0.009	0.13	3.370	0.009	0.12	GD
27H8CN	X	2.888	-0.470	-6.52	2.903	-0.458	-6.17	IC
2WYLBZ		3.242	-0.116	-1.61	3.260	-0.102	-1.37	WD
3EJ64V	*	3.167	-0.191	-2.65	3.158	-0.203	-2.74	XX
4B9B3X		3.417	0.059	0.82	3.437	0.075	1.02	OE
4PJ4GM		3.303	-0.055	-0.76	3.302	-0.060	-0.81	WD
6YEQJT		3.315	-0.043	-0.59	3.314	-0.047	-0.63	WD
7UT27L		3.371	0.014	0.19	3.405	0.044	0.59	OE
7YHPDC	*	3.183	-0.175	-2.43	3.166	-0.196	-2.64	IC
8NBARE		3.384	0.026	0.37	3.376	0.015	0.20	OE
8XJN6Z		3.507	0.149	2.07	3.473	0.112	1.51	DR
BAE8VQ	X	3.647	0.290	4.02	3.633	0.271	3.66	OE
E78HXL		3.324	-0.034	-0.47	3.352	-0.009	-0.13	IC
EDLRE8		3.300	-0.058	-0.80	3.350	-0.011	-0.15	DR
F8B6WN		3.399	0.041	0.58	3.398	0.036	0.49	OE
FBFRMX		3.439	0.081	1.13	3.436	0.075	1.01	WD
FYXD66		3.377	0.020	0.28	3.379	0.018	0.24	XR
GULMUU		3.387	0.029	0.40	3.420	0.059	0.79	OE
HMFB34		3.373	0.016	0.22	3.370	0.009	0.12	OE
KBEPQP		3.305	-0.052	-0.72	3.296	-0.065	-0.88	WD
KG7YAL		3.330	-0.028	-0.38	3.330	-0.031	-0.42	XR
KNYA6Q		3.325	-0.033	-0.46	3.318	-0.044	-0.59	OE
LAVUD9		3.281	-0.076	-1.06	3.279	-0.082	-1.10	OE
MFQA6Z		3.520	0.162	2.26	3.533	0.172	2.32	OE
MU2TN2		3.376	0.018	0.26	3.403	0.041	0.56	OE
P6CEFZ		3.360	0.003	0.04	3.365	0.004	0.05	WD
P6VTCP		3.367	0.009	0.13	3.367	0.005	0.07	OE
QT6KCE	X	3.783	0.426	5.91	3.757	0.395	5.33	OE
R44HXT		3.381	0.024	0.33	3.378	0.017	0.22	OE
RJTU38		3.370	0.012	0.17	3.363	0.002	0.03	IC
TVMGWA		3.357	0.000	0.00	3.349	-0.012	-0.16	OE
U2QT7R		3.374	0.017	0.23	3.380	0.018	0.25	OE
VJ8DKB		3.360	0.002	0.03	3.347	-0.015	-0.20	OE
VLJCAY		3.417	0.059	0.82	3.407	0.045	0.61	OE
X6LFX7		3.353	-0.005	-0.06	3.343	-0.018	-0.25	IC
XVGWKP		3.350	-0.008	-0.11	3.356	-0.005	-0.07	WD
YCCH32		3.443	0.086	1.19	3.457	0.095	1.28	OE
YFMTTB		3.390	0.032	0.45	3.410	0.049	0.66	OE

Summary Statistics

	Sample J59		Sample J60	
Grand Means	3.358	Percent	3.361	Percent
Stnd Dev Btwn Labs	0.072	Percent	0.074	Percent

Samples J59, J60 : Alloy 625, Alloy 625

Statistics based on 35 of 38 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used for Current Element		

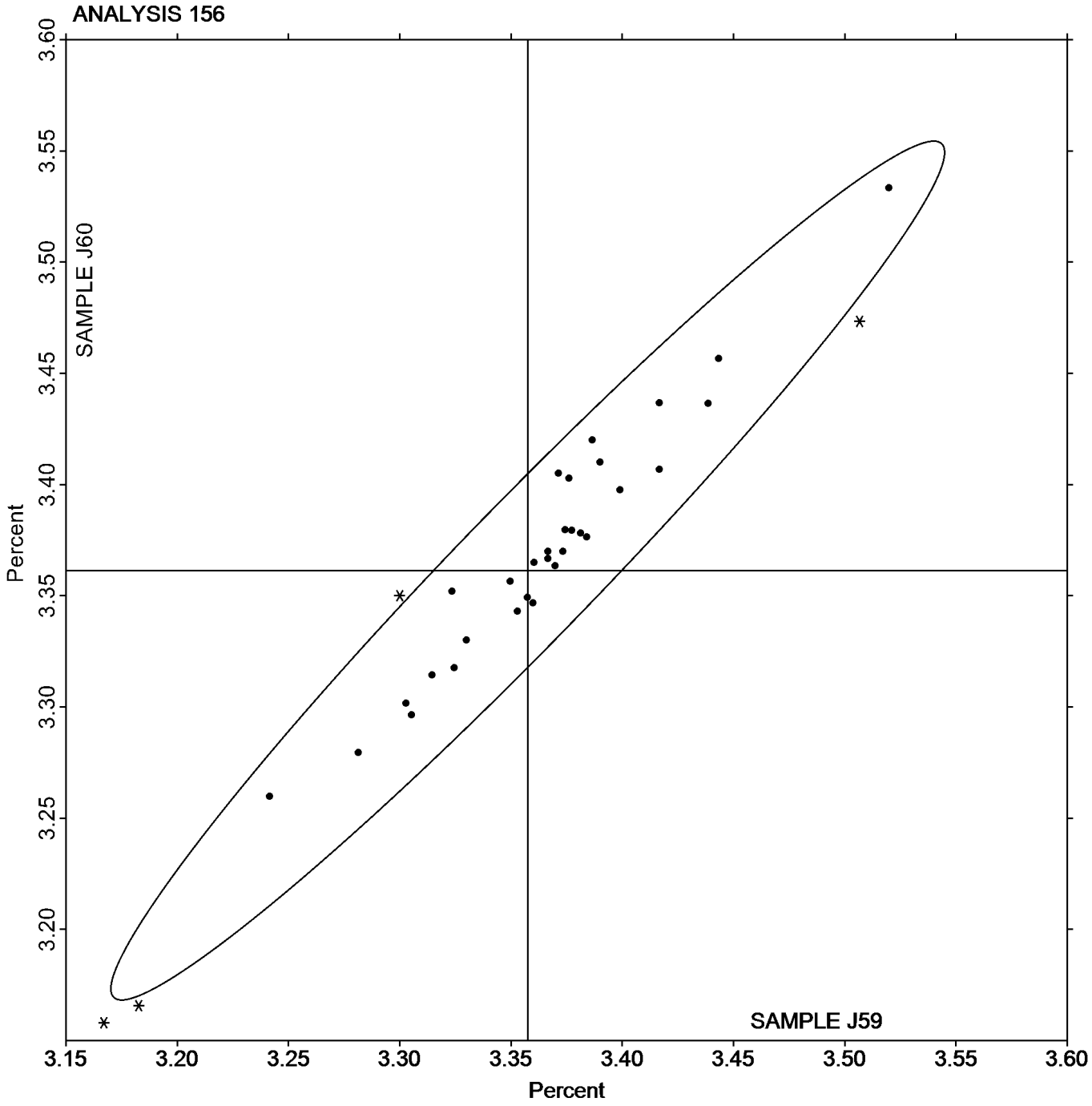
Comments on Assigned Data Flags for Test #156

27H8CN (X) - Data for both samples are low. Possible Systematic Error.

BAE8VQ (X) - Data for both samples are high. Possible Systematic Error.

QT6KCE (X) - Data for both samples are high. Possible Systematic Error.

SAMPLE J59	SAMPLE J60
3.358 Percent	3.361 Percent



		Sample J59			Sample J60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ		0.3063	-0.0003	-0.02	0.3053	0.0013	0.11	GD
27H8CN		0.3033	-0.0033	-0.25	0.3037	-0.0004	-0.03	IC
2WYLBZ	X	0.00900	-0.2976	-22.42	0.0120	-0.2921	-25.09	WD
3EJ64V	X	0.2523	-0.0543	-4.09	0.3100	0.0059	0.51	XX
4B9B3X		0.2923	-0.0143	-1.08	0.2883	-0.0157	-1.35	OE
4PJ4GM		0.3155	0.0088	0.67	0.3127	0.0086	0.74	WD
6YEQJT		0.3008	-0.0059	-0.44	0.3006	-0.0035	-0.30	WD
7UT27L		0.3020	-0.0046	-0.35	0.3007	-0.0034	-0.29	OE
7YHPDC	X	0.2300	-0.0766	-5.77	0.2350	-0.0691	-5.93	IC
8NBARE		0.2990	-0.0076	-0.57	0.2960	-0.0081	-0.69	OE
8XJN6Z		0.3333	0.0267	2.01	0.3233	0.0193	1.65	DR
BAE8VQ		0.2997	-0.0070	-0.52	0.3003	-0.0037	-0.32	OE
E78HXL		0.3112	0.0046	0.35	0.3118	0.0077	0.66	IC
EDLRE8		0.3000	-0.0066	-0.50	0.3033	-0.0007	-0.06	DR
F8B6WN		0.3310	0.0244	1.84	0.3293	0.0253	2.17	OE
FBFRMX	*	0.3415	0.0349	2.63	0.3289	0.0248	2.13	WD
FYXD66		0.3010	-0.0056	-0.42	0.2977	-0.0064	-0.55	XR
GULMUU		0.3030	-0.0036	-0.27	0.3047	0.0006	0.05	OE
HMFB34		0.2890	-0.0176	-1.33	0.2890	-0.0151	-1.29	OE
KBEPQP		0.3147	0.0080	0.61	0.3140	0.0099	0.85	WD
KG7YAL		0.3300	0.0234	1.76	0.3200	0.0159	1.37	XR
KNYA6Q		0.2987	-0.0080	-0.60	0.2967	-0.0074	-0.64	OE
LAVUD9	X	0.3783	0.0717	5.40	0.3637	0.0596	5.12	OE
MFQA6Z		0.2910	-0.0156	-1.18	0.2907	-0.0134	-1.15	OE
MU2TN2		0.2863	-0.0203	-1.53	0.2857	-0.0184	-1.58	OE
P6CEFZ		0.3083	0.0017	0.13	0.3070	0.0029	0.25	WD
P6VTCP		0.3000	-0.0066	-0.50	0.3000	-0.0041	-0.35	OE
QT6KCE		0.2957	-0.0110	-0.83	0.2940	-0.0101	-0.87	OE
R44HXT		0.2997	-0.0070	-0.52	0.2967	-0.0074	-0.64	OE
RJTU38		0.3000	-0.0066	-0.50	0.2967	-0.0074	-0.64	IC
TVMGWA		0.2987	-0.0080	-0.60	0.2947	-0.0094	-0.81	OE
U2QT7R		0.3171	0.0105	0.79	0.3168	0.0127	1.09	OE
VJ8DKB		0.3263	0.0197	1.48	0.3220	0.0179	1.54	XX
VLJCAY		0.3139	0.0073	0.55	0.3097	0.0056	0.48	IC
X6LFX7		0.2950	-0.0116	-0.88	0.2947	-0.0094	-0.81	IC
XVGWKP		0.3110	0.0044	0.33	0.3103	0.0063	0.54	WD
YCCH32	*	0.3000	-0.0066	-0.50	0.2900	-0.0141	-1.21	OE
YFMTTB		0.3100	0.0034	0.25	0.3033	-0.0007	-0.06	OE

Summary Statistics

	Sample J59		Sample J60	
Grand Means	0.3066	Percent	0.3041	Percent
Stnd Dev Btwn Labs	0.0133	Percent	0.0116	Percent

Samples J59, J60 : Alloy 625, Alloy 625

Statistics based on 34 of 38 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used for Current Element		

Comments on Assigned Data Flags for Test #157

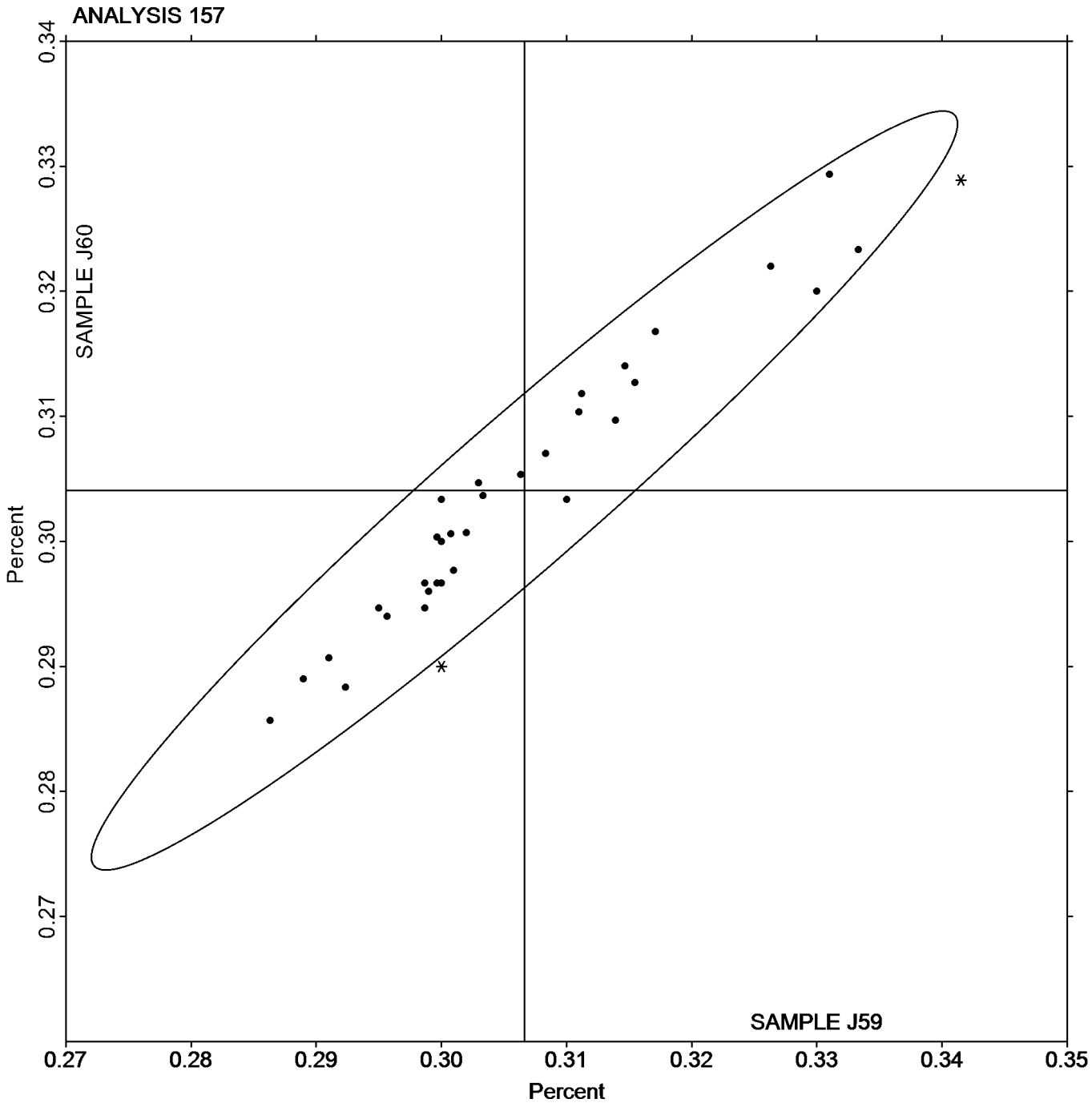
2WYLBZ (X) - Data for both samples are low. Possible Systematic Error.

3EJ64V (X) - Data for sample J59 are low. Inconsistent within the determinations of sample J59.

7YHPDC (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample J59.

LAVUD9 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

SAMPLE J59	SAMPLE J60
0.3066 Percent	0.3041 Percent



		Sample M59			Sample M60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ		0.0527	-0.0034	-1.13	0.0473	0.0008	0.26	GD
27H8CN		0.0560	-0.0001	-0.02	0.0462	-0.0003	-0.09	CI
2WYLBZ		0.0543	-0.0018	-0.59	0.0448	-0.0017	-0.55	CI
4B9B3X		0.0561	0.0000	-0.01	0.0456	-0.0009	-0.30	OE
4CVWNT		0.0500	-0.0061	-2.03	0.0407	-0.0058	-1.85	GD
4K6HAQ		0.0530	-0.0031	-1.03	0.0432	-0.0033	-1.04	OE
4KQ2HU		0.0557	-0.0004	-0.15	0.0464	-0.0001	-0.04	CI
4QH4NE		0.0560	-0.0001	-0.05	0.0453	-0.0012	-0.38	CI
642BVZ		0.0556	-0.0005	-0.18	0.0456	-0.0009	-0.30	CI
6YEQJT		0.0557	-0.0004	-0.14	0.0457	-0.0008	-0.27	CO
738EBJ		0.0527	-0.0034	-1.14	0.0420	-0.0045	-1.43	IR
7UT27L		0.0563	0.0002	0.07	0.0470	0.0005	0.15	OE
8EWUWQ		0.0532	-0.0029	-0.95	0.0443	-0.0022	-0.69	CI
96MNE2		0.0557	-0.0004	-0.14	0.0453	-0.0012	-0.38	CI
9X7P8H		0.0527	-0.0034	-1.14	0.0420	-0.0045	-1.43	CI
AFRQLK		0.0563	0.0002	0.07	0.0480	0.0015	0.47	OE
BAE8VQ	X	0.0590	0.0029	0.96	0.0613	0.0148	4.69	OE
DHBPUB		0.0537	-0.0024	-0.81	0.0460	-0.0005	-0.16	CO
F8B6WN		0.0633	0.0072	2.40	0.0510	0.0045	1.42	CI
FBFRMX		0.0534	-0.0027	-0.89	0.0440	-0.0025	-0.80	CI
FQJZZ8		0.0577	0.0016	0.52	0.0460	-0.0005	-0.16	CO
G7VVD9		0.0633	0.0072	2.40	0.0547	0.0082	2.58	OE
GULMUU		0.0560	-0.0001	-0.04	0.0463	-0.0002	-0.08	CO
H66GLG		0.0545	-0.0016	-0.54	0.0453	-0.0012	-0.37	OE
HMFB34		0.0589	0.0028	0.93	0.0519	0.0054	1.70	OE
JKMBAD		0.0560	-0.0001	-0.04	0.0500	0.0035	1.10	OE
JUVEJ6		0.0587	0.0026	0.85	0.0500	0.0035	1.10	OE
KBEPQP		0.0617	0.0056	1.84	0.0543	0.0078	2.47	OE
KNYA6Q		0.0520	-0.0041	-1.37	0.0420	-0.0045	-1.42	CO
KPZXRW		0.0562	0.0001	0.04	0.0468	0.0003	0.08	OE
LAVUD9	X	0.0677	0.0116	3.83	0.0553	0.0088	2.79	OE
MMMGHB		0.0571	0.0010	0.32	0.0467	0.0002	0.06	CI
MU2TN2	*	0.0563	0.0002	0.07	0.0530	0.0065	2.05	CI
NWDZNZ		0.0543	-0.0018	-0.59	0.0430	-0.0035	-1.11	CI
P6CEFZ		0.0515	-0.0046	-1.53	0.0431	-0.0034	-1.07	CI
P6VTCP	*	0.0603	0.0042	1.40	0.0537	0.0072	2.26	OE
PDTKTH		0.0570	0.0009	0.31	0.0455	-0.0010	-0.31	OE
PWKQQP		0.0530	-0.0031	-1.03	0.0440	-0.0025	-0.80	CI
PWYPX8		0.0563	0.0002	0.07	0.0467	0.0002	0.06	XX
RJTU38		0.0607	0.0046	1.51	0.0490	0.0025	0.79	CI
T6NF9Y		0.0570	0.0009	0.29	0.0459	-0.0006	-0.21	OE
TH9UBY		0.0578	0.0017	0.57	0.0469	0.0004	0.11	OE
TVMGWA		0.0573	0.0012	0.41	0.0475	0.0010	0.30	OE
UB2K2N		0.0553	-0.0008	-0.26	0.0460	-0.0005	-0.16	OE
UD7EWF		0.0573	0.0012	0.41	0.0470	0.0005	0.15	GD
ULKUR4		0.0560	-0.0001	-0.04	0.0467	0.0002	0.05	OE
VJ8DKB		0.0502	-0.0059	-1.97	0.0409	-0.0056	-1.76	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 180

Corrosion Resistant Steel, Element #1

CARBON (C)

Cycle 126
2nd Qtr 2019

		Sample M59			Sample M60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
VXCVQP		0.0617	0.0056	1.84	0.0510	0.0045	1.42	OE
VYJMTQ		0.0564	0.0003	0.11	0.0472	0.0007	0.22	OE
W772JQ		0.0567	0.0006	0.19	0.0450	-0.0015	-0.48	CI
WWWV6E		0.0587	0.0026	0.85	0.0480	0.0015	0.47	CI
X6LFX7		0.0573	0.0012	0.41	0.0478	0.0013	0.42	CO
YFMTTB	X	0.0453	-0.0108	-3.57	0.0350	-0.0115	-3.64	OE

Summary Statistics

	Sample M59		Sample M60	
Grand Means	0.0561	Percent	0.0465	Percent
Stnd Dev Btwn Labs	0.0030	Percent	0.0032	Percent

Samples M59, M60 : AISI 310, AISI 310

Statistics based on 49 of 53 reporting participants

Key to Method Codes Reported by Participants

CI	Combustion / IR	CO	Combustion
GD	Spectrometry - Glow Discharge (GDS)	IR	IR (Absorption / Detection)
OE	Spectrometry - Optical Emission (OES)	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #180

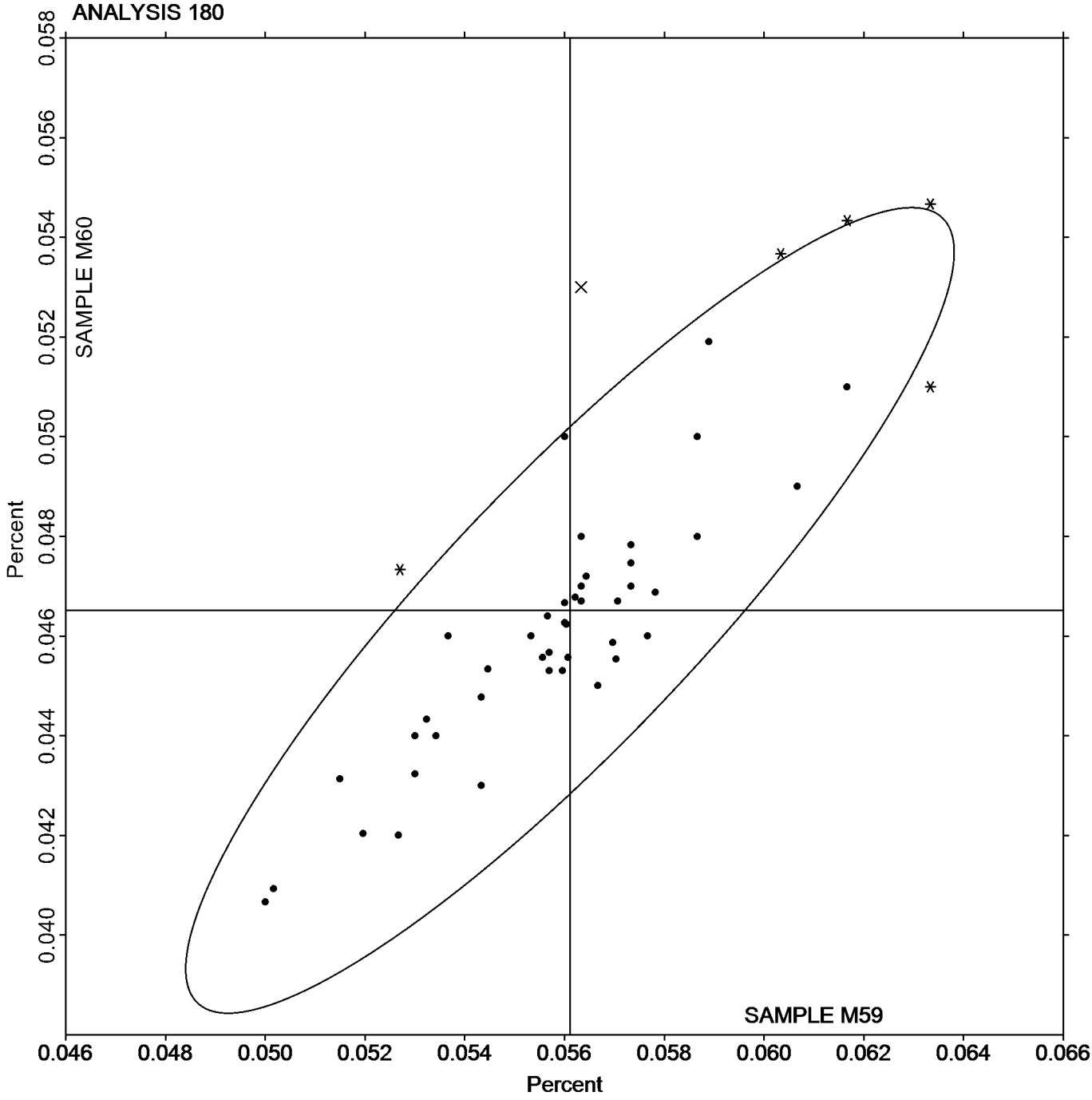
BAE8VQ (X) - Data for sample M60 are high.

LAVUD9 (X) - Data for both samples are high. Possible Systematic Error.

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

SAMPLE M59
0.0561 Percent

SAMPLE M60
0.0465 Percent



		Sample M59			Sample M60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ	X	1.530	-0.129	-3.82	1.353	-0.057	-2.06	GD
27H8CN		1.640	-0.019	-0.56	1.377	-0.034	-1.21	IC
2WYLBZ		1.657	-0.002	-0.05	1.418	0.008	0.27	WD
4B9B3X		1.717	0.058	1.73	1.457	0.046	1.65	OE
4CVWNT		1.653	-0.005	-0.15	1.400	-0.011	-0.39	XX
4K6HAQ		1.662	0.004	0.11	1.415	0.004	0.14	OE
4KQ2HU		1.695	0.036	1.07	1.435	0.024	0.88	IC
4QH4NE		1.659	0.001	0.02	1.408	-0.002	-0.09	WD
642BVZ		1.624	-0.034	-1.02	1.384	-0.026	-0.94	OE
6YEQJT		1.648	-0.010	-0.30	1.407	-0.003	-0.12	WD
738EBJ		1.693	0.034	1.03	1.428	0.017	0.61	WD
7EPTTC		1.630	-0.029	-0.85	1.380	-0.031	-1.11	GD
7UT27L	*	1.714	0.056	1.66	1.414	0.003	0.12	OE
8EWUWQ		1.635	-0.024	-0.70	1.384	-0.027	-0.97	XR
96MNE2		1.654	-0.004	-0.12	1.415	0.004	0.15	WD
9X7P8H		1.694	0.035	1.06	1.431	0.021	0.74	WD
AFRQLK		1.630	-0.029	-0.85	1.393	-0.017	-0.63	OE
BAE8VQ		1.674	0.015	0.45	1.401	-0.009	-0.34	OE
DHBPUB		1.610	-0.049	-1.44	1.377	-0.034	-1.22	OE
F8B6WN	X	9.440	7.781	231.41	1.437	0.027	0.96	OE
FBFRMX		1.663	0.004	0.13	1.409	-0.002	-0.06	WD
FQJZZ8		1.707	0.048	1.43	1.437	0.026	0.93	IC
G7VVD9		1.661	0.002	0.07	1.420	0.010	0.35	OE
GULMUU		1.660	0.001	0.04	1.403	-0.007	-0.27	OE
H66GLG		1.682	0.023	0.70	1.429	0.018	0.65	WD
HMFB34		1.613	-0.045	-1.34	1.403	-0.007	-0.27	OE
JKMBAD	X	1.397	-0.262	-7.79	1.417	0.006	0.21	OE
JUVEJ6		1.650	-0.009	-0.25	1.393	-0.017	-0.63	OE
KBEPQP		1.655	-0.004	-0.11	1.408	-0.003	-0.11	DR
KNYA6Q		1.649	-0.010	-0.28	1.401	-0.010	-0.35	OE
KPZXRW		1.644	-0.014	-0.42	1.398	-0.012	-0.45	OE
LAVUD9		1.743	0.084	2.50	1.479	0.069	2.47	OE
MMMGHB		1.653	-0.006	-0.17	1.418	0.007	0.25	OE
MU2TN2		1.663	0.005	0.14	1.402	-0.008	-0.30	OE
NWDZNZ		1.667	0.008	0.24	1.420	0.009	0.33	IC
P6CEFZ		1.660	0.001	0.03	1.402	-0.009	-0.33	WD
P6VTCP		1.627	-0.032	-0.95	1.377	-0.034	-1.22	OE
PDTKTH		1.605	-0.053	-1.58	1.356	-0.054	-1.96	OE
PWKQQP	*	1.748	0.090	2.67	1.493	0.083	2.97	IC
PWYPX8		1.652	-0.007	-0.19	1.408	-0.003	-0.11	XX
RJTU38		1.690	0.031	0.94	1.417	0.006	0.21	IC
T6NF9Y		1.624	-0.034	-1.02	1.399	-0.012	-0.43	OE
TH9UBY		1.653	-0.006	-0.18	1.412	0.001	0.05	OE
TVMGWA		1.664	0.006	0.17	1.424	0.014	0.49	OE
UB2K2N		1.710	0.051	1.53	1.463	0.053	1.89	OE
UD7EWF		1.613	-0.045	-1.34	1.387	-0.024	-0.87	GD
ULKUR4		1.690	0.031	0.94	1.440	0.029	1.05	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 181

Corrosion Resistant Steel, Element #2

MANGANESE (Mn)

Cycle 126
2nd Qtr
2019

WebCode	Data Flag	Sample M59 Lab Mean	Sample M59 Diff. from Grand Mean	Sample M59 CPV	Sample M60 Lab Mean	Sample M60 Diff. from Grand Mean	Sample M60 CPV	Method
VJ8DKB		1.703	0.045	1.33	1.460	0.049	1.77	OE
VXCVQP		1.612	-0.047	-1.39	1.372	-0.039	-1.40	OE
VYJMTQ		1.648	-0.010	-0.30	1.401	-0.010	-0.35	WD
W772JQ		1.657	-0.002	-0.06	1.420	0.009	0.33	OE
WWWV6E		1.623	-0.035	-1.05	1.380	-0.031	-1.11	IC
X6LFX7		1.665	0.006	0.19	1.424	0.014	0.49	IC
YFMTTB		1.597	-0.062	-1.84	1.370	-0.041	-1.46	OE

Summary Statistics

	Sample M59		Sample M60	
Grand Means	1.659	Percent	1.411	Percent
Stnd Dev Btwn Labs	0.034	Percent	0.028	Percent

Samples M59, M60 : AISI 310, AISI 310

Statistics based on 50 of 54 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used for Current Element		

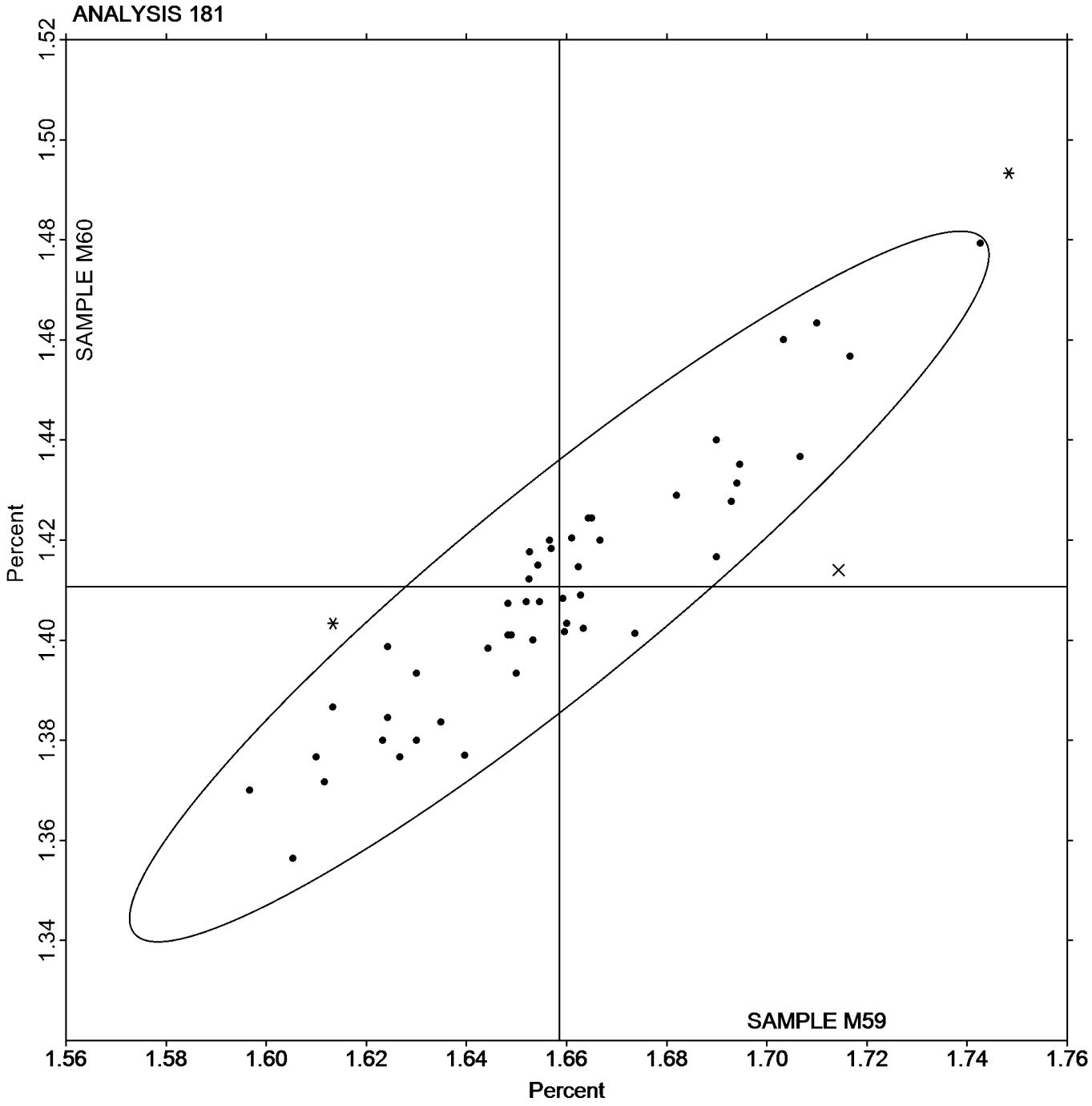
Comments on Assigned Data Flags for Test #181

26YEVZ (X) - Data for sample M59 are low.

F8B6WN (X) - Data for sample M59 are extreme.

JKMBAD (X) - Data for sample M59 are low.

SAMPLE M59	SAMPLE M60
1.659 Percent	1.411 Percent



		Sample M59			Sample M60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ		0.0238	0.0007	0.46	0.0271	0.0004	0.24	GD
27H8CN		0.0230	-0.0001	-0.04	0.0270	0.0003	0.16	IC
2WYLBZ		0.0217	-0.0014	-0.88	0.0257	-0.0011	-0.64	WD
4B9B3X		0.0263	0.0032	2.03	0.0291	0.0024	1.44	OE
4CVWNT		0.0267	0.0036	2.27	0.0280	0.0013	0.76	XX
4K6HAQ		0.0247	0.0017	1.05	0.0294	0.0027	1.60	OE
4KQ2HU		0.0269	0.0038	2.41	0.0304	0.0037	2.22	IC
4QH4NE		0.0232	0.0001	0.09	0.0273	0.0006	0.34	WD
642BVZ		0.0254	0.0023	1.48	0.0302	0.0035	2.08	OE
6YEQJT		0.0221	-0.0010	-0.63	0.0260	-0.0008	-0.46	OE
738EBJ		0.0213	-0.0018	-1.13	0.0248	-0.0020	-1.18	WD
7EPTTC		0.0240	0.0009	0.59	0.0270	0.0003	0.16	GD
7UT27L		0.0230	-0.0001	-0.06	0.0265	-0.0003	-0.16	OE
8EWUWQ	X	0.0280	0.0050	3.12	0.0340	0.0073	4.35	XR
96MNE2		0.0217	-0.0014	-0.88	0.0266	-0.0001	-0.06	WD
9X7P8H		0.0214	-0.0016	-1.02	0.0252	-0.0015	-0.92	WD
AFRQLK	X	0.0175	-0.0056	-3.52	0.0235	-0.0032	-1.94	OE
BAE8VQ		0.0204	-0.0027	-1.67	0.0235	-0.0032	-1.94	OE
DHBPUB		0.0243	0.0013	0.80	0.0263	-0.0004	-0.24	OE
F8B6WN		0.0210	-0.0021	-1.30	0.0240	-0.0027	-1.64	OE
FBFRMX		0.0235	0.0004	0.25	0.0278	0.0011	0.66	WD
FQJZZ8		0.0216	-0.0015	-0.94	0.0270	0.0003	0.16	IC
G7VVD9		0.0206	-0.0025	-1.57	0.0243	-0.0024	-1.44	OE
GULMUU		0.0250	0.0019	1.22	0.0277	0.0009	0.56	OE
H66GLG		0.0231	0.0000	0.02	0.0270	0.0002	0.14	WD
HMFB34		0.0222	-0.0008	-0.52	0.0270	0.0003	0.18	OE
JKMBAD		0.0267	0.0037	2.31	0.0274	0.0007	0.40	OE
JUVEJ6		0.0227	-0.0004	-0.25	0.0247	-0.0021	-1.24	OE
KBEPQP		0.0220	-0.0011	-0.67	0.0260	-0.0007	-0.44	DR
KNYA6Q		0.0212	-0.0018	-1.15	0.0248	-0.0019	-1.14	OE
KPZXRW		0.0229	-0.0002	-0.13	0.0264	-0.0004	-0.23	OE
LAVUD9		0.0223	-0.0008	-0.50	0.0258	-0.0009	-0.54	OE
MMMGHB		0.0221	-0.0009	-0.58	0.0257	-0.0010	-0.60	OE
MU2TN2		0.0220	-0.0011	-0.67	0.0260	-0.0007	-0.44	OE
NWDZNZ		0.0223	-0.0007	-0.46	0.0263	-0.0004	-0.24	IC
P6CEFZ		0.0220	-0.0011	-0.67	0.0250	-0.0017	-1.04	WD
P6VTCP		0.0233	0.0003	0.17	0.0267	-0.0001	-0.04	OE
PDTKTH		0.0227	-0.0004	-0.23	0.0265	-0.0003	-0.16	OE
PWKQQP		0.0237	0.0006	0.38	0.0283	0.0016	0.96	IC
PWYPX8		0.0222	-0.0008	-0.52	0.0268	0.0001	0.06	XX
RJTU38		0.0230	-0.0001	-0.04	0.0270	0.0003	0.16	IC
T6NF9Y		0.0241	0.0010	0.63	0.0278	0.0011	0.64	OE
TH9UBY		0.0226	-0.0005	-0.30	0.0279	0.0011	0.68	OE
UB2K2N		0.0260	0.0029	1.85	0.0310	0.0043	2.56	OE
UD7EWF		0.0230	-0.0001	-0.04	0.0253	-0.0014	-0.84	GD
ULKUR4		0.0233	0.0003	0.17	0.0270	0.0003	0.16	OE
VJ8DKB		0.0223	-0.0007	-0.46	0.0280	0.0013	0.78	OE

		Sample M59			Sample M60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
VXCVQP	X	0.0553	0.0323	20.28	0.0623	0.0356	21.33	OE
VYJMTQ		0.0225	-0.0006	-0.37	0.0263	-0.0005	-0.28	WD
W772JQ		0.0230	-0.0001	-0.04	0.0293	0.0026	1.56	OE
WWWV6E		0.0237	0.0006	0.38	0.0243	-0.0024	-1.44	IC
YFMTTB		0.0217	-0.0014	-0.88	0.0247	-0.0021	-1.24	OE

Summary Statistics

	Sample M59		Sample M60	
Grand Means	0.0231	Percent	0.0267	Percent
Stnd Dev Btwn Labs	0.0016	Percent	0.0017	Percent

Samples M59, M60 : AISI 310, AISI 310

Statistics based on 49 of 52 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used for Current Element		

Comments on Assigned Data Flags for Test #182

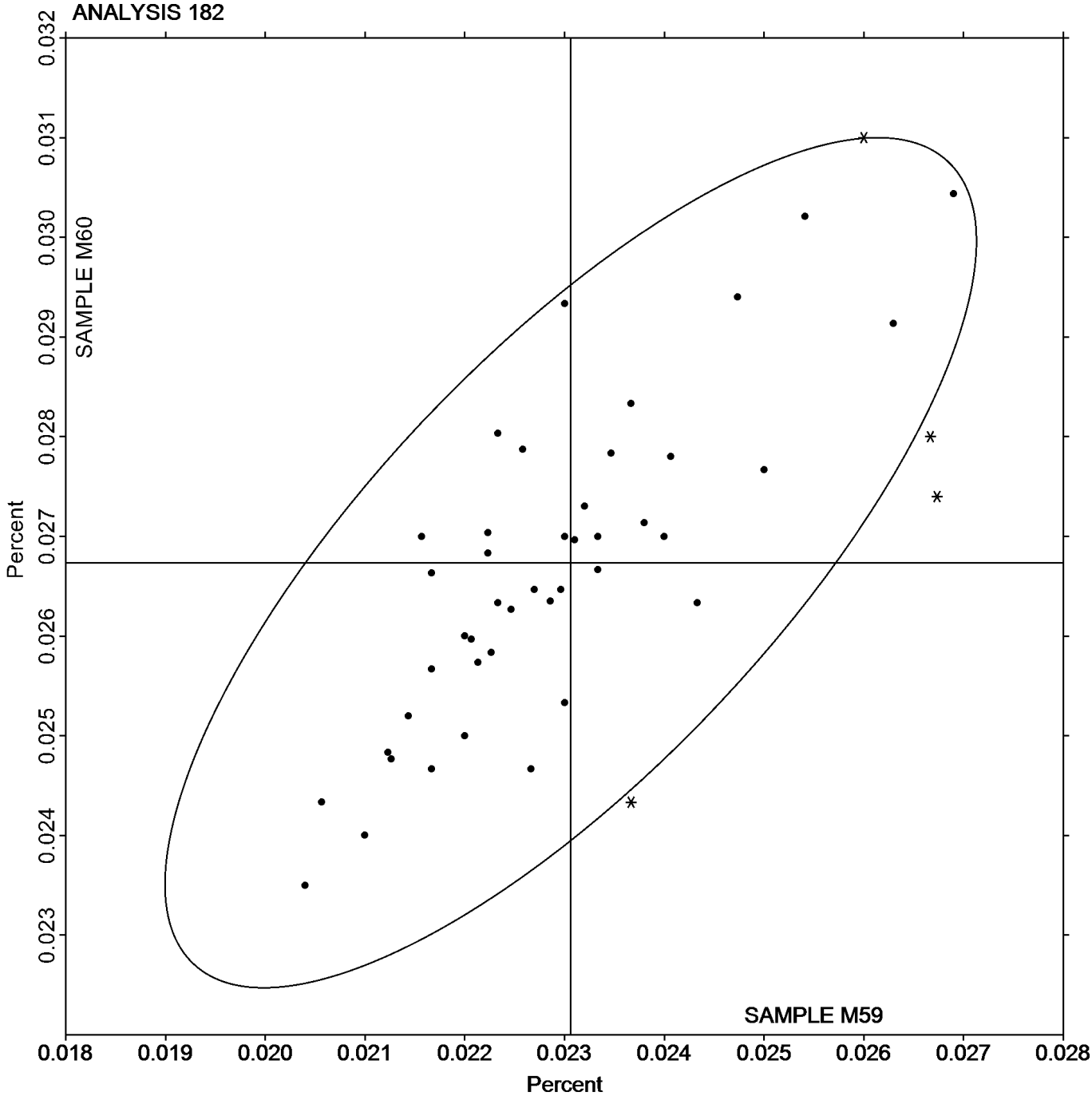
8EWUWQ (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample M60.

AFRQLK (X) - Data for sample M59 are low. Inconsistent within the determinations of sample M60.

VXCVQP (X) - Data for both samples are high. Possible Systematic Error.

SAMPLE M59
0.0231 Percent

SAMPLE M60
0.0267 Percent



		Sample M59			Sample M60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
27H8CN		0.0703	0.0102	2.20	0.0638	0.0078	1.88	CI
2WYLBZ		0.0616	0.0015	0.32	0.0571	0.0011	0.26	CO
4K6HAQ	*	0.0481	-0.0120	-2.57	0.0446	-0.0115	-2.77	OE
4QH4NE		0.0627	0.0026	0.57	0.0594	0.0034	0.82	CO
642BVZ		0.0615	0.0014	0.29	0.0568	0.0008	0.19	CO
6YEQJT		0.0634	0.0033	0.70	0.0581	0.0021	0.51	XX
7UT27L		0.0638	0.0037	0.79	0.0591	0.0030	0.73	OE
8EWUWQ		0.0616	0.0015	0.33	0.0583	0.0023	0.55	CI
96MNE2		0.0615	0.0014	0.31	0.0575	0.0015	0.36	CI
AFRQLK		0.0538	-0.0063	-1.36	0.0500	-0.0061	-1.47	OE
F8B6WN		0.0600	-0.0001	-0.02	0.0600	0.0040	0.96	OE
FBFRMX		0.0606	0.0005	0.10	0.0581	0.0020	0.49	CO
FQJZZ8		0.0587	-0.0014	-0.31	0.0560	0.0000	-0.01	XX
GULMUU	X	0.0730	0.0129	2.77	0.0730	0.0170	4.10	OE
H66GLG		0.0545	-0.0056	-1.21	0.0526	-0.0034	-0.82	OE
JKMBAD	X	0.0212	-0.0389	-8.35	0.0433	-0.0127	-3.07	OE
KNYA6Q		0.0557	-0.0044	-0.95	0.0537	-0.0024	-0.57	OE
KPZXRW		0.0575	-0.0026	-0.55	0.0526	-0.0034	-0.82	OE
LAVUD9		0.0640	0.0039	0.84	0.0600	0.0040	0.96	OE
MMMGHB		0.0612	0.0011	0.23	0.0566	0.0006	0.14	CI
MU2TN2		0.0610	0.0009	0.19	0.0567	0.0006	0.15	CI
NWDZNZ		0.0596	-0.0005	-0.11	0.0565	0.0005	0.12	CO
P6CEFZ		0.0626	0.0025	0.53	0.0585	0.0025	0.60	CO
PDTKTH		0.0526	-0.0075	-1.60	0.0471	-0.0090	-2.17	OE
PWKQQP		0.0643	0.0042	0.91	0.0583	0.0023	0.55	CI
PWYPX8		0.0604	0.0003	0.06	0.0570	0.0009	0.22	XX
T6NF9Y	X	0.0691	0.0090	1.93	0.0488	-0.0073	-1.76	OE
TH9UBY		0.0520	-0.0081	-1.73	0.0512	-0.0049	-1.18	OE
TVMGWA		0.0677	0.0076	1.63	0.0617	0.0056	1.36	OE
UB2K2N		0.0560	-0.0041	-0.88	0.0520	-0.0040	-0.98	OE
ULKUR4		0.0587	-0.0014	-0.31	0.0547	-0.0014	-0.33	OE
VJ8DKB		0.0583	-0.0018	-0.38	0.0532	-0.0029	-0.69	OE
VYJMTQ		0.0573	-0.0028	-0.59	0.0524	-0.0036	-0.88	OE
W772JQ		0.0620	0.0019	0.41	0.0580	0.0020	0.47	CI
WWWV6E		0.0660	0.0059	1.27	0.0613	0.0053	1.28	CI
X6LFX7		0.0643	0.0042	0.91	0.0563	0.0003	0.07	CO
YFMTTB	X	0.0770	0.0169	3.63	0.0730	0.0170	4.10	OE

Summary Statistics

	Sample M59		Sample M60	
Grand Means	0.0601	Percent	0.0560	Percent
Stnd Dev Btwn Labs	0.0047	Percent	0.0041	Percent

Samples M59, M60 : AISI 310, AISI 310

Statistics based on 33 of 37 reporting participants

Key to Method Codes Reported by Participants

CI	Combustion / IR	CO	Combustion
OE	Spectrometry - Optical Emission (OES)	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #183

GULMUU (X) - Data for both samples are high. Possible Systematic Error.

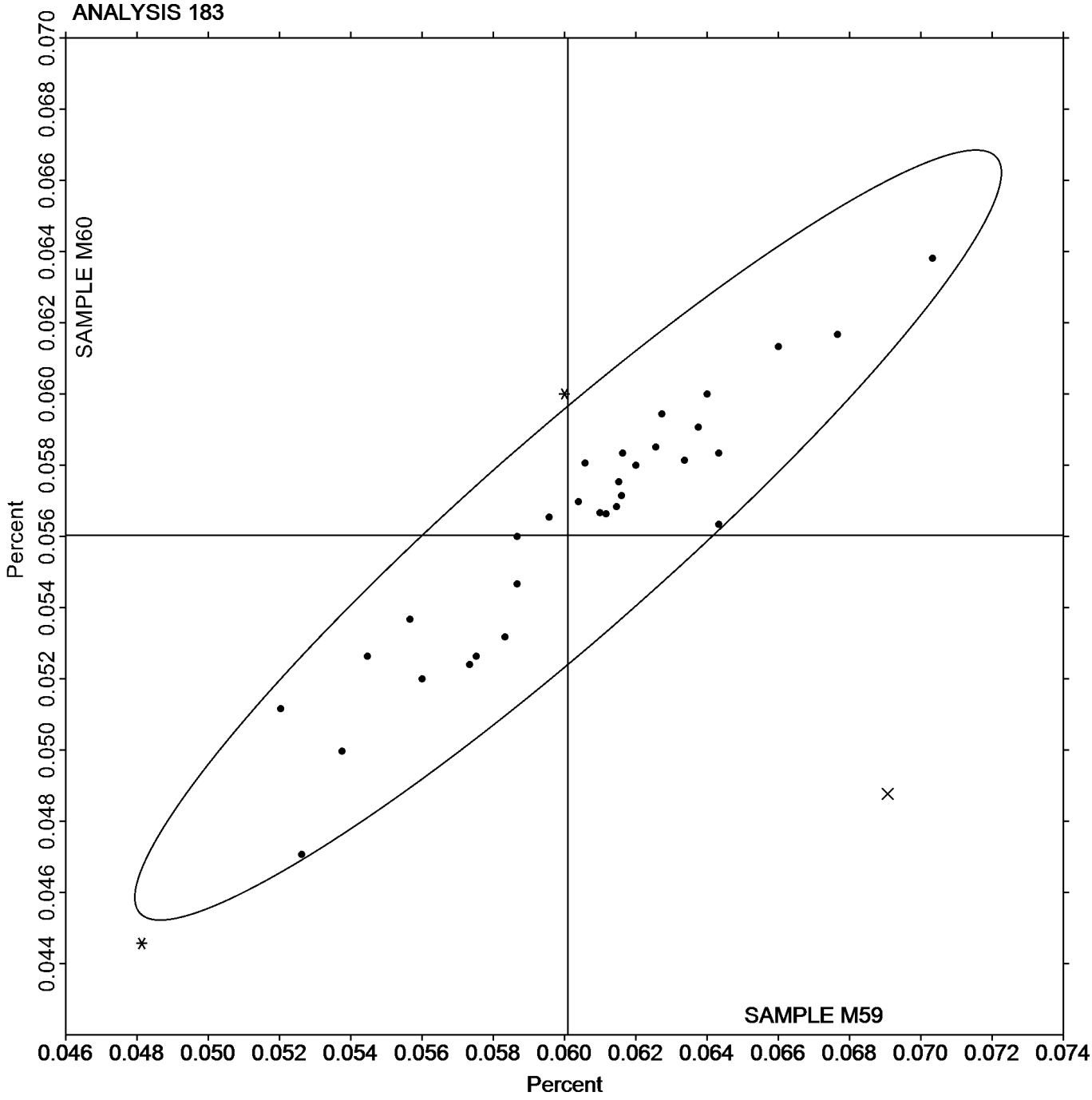
JKMBAD (X) - Data for both samples are low. Possible Systematic Error.

T6NF9Y (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.

YFMTTB (X) - Data for both samples are high. Possible Systematic Error.

SAMPLE M59
0.0601 Percent

SAMPLE M60
0.0560 Percent



		Sample M59			Sample M60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ		0.4557	-0.0053	-0.36	0.6650	-0.0119	-0.67	GD
27H8CN		0.4527	-0.0083	-0.56	0.6717	-0.0052	-0.29	IC
2WYLBZ		0.4700	0.0091	0.61	0.6947	0.0178	1.00	WD
4B9B3X		0.4460	-0.0149	-1.01	0.6427	-0.0342	-1.93	OE
4CVWNT	*	0.4897	0.0287	1.95	0.6783	0.0015	0.08	XX
4K6HAQ	X	0.5277	0.0667	4.52	0.7367	0.0598	3.37	OE
4KQ2HU	X	0.5851	0.1242	8.41	0.7345	0.0576	3.25	IC
4QH4NE		0.4690	0.0081	0.55	0.6917	0.0148	0.84	WD
642BVZ		0.4669	0.0059	0.40	0.6862	0.0094	0.53	OE
6YEQJT		0.4616	0.0007	0.05	0.6719	-0.0050	-0.28	OE
738EBJ		0.4543	-0.0066	-0.45	0.6650	-0.0119	-0.67	WD
7EPTTC	X	0.5300	0.0691	4.68	0.6900	0.0131	0.74	GD
7UT27L		0.4773	0.0164	1.11	0.6920	0.0151	0.85	OE
8EWUWQ		0.4803	0.0194	1.31	0.7090	0.0321	1.81	OE
96MNE2		0.4605	-0.0005	-0.03	0.6780	0.0011	0.06	WD
9X7P8H		0.4623	0.0014	0.10	0.6710	-0.0059	-0.33	WD
AFRQLK		0.4660	0.0051	0.34	0.6747	-0.0022	-0.12	OE
BAE8VQ		0.4497	-0.0113	-0.76	0.6693	-0.0075	-0.42	OE
DHBPUB	*	0.4180	-0.0429	-2.91	0.6333	-0.0435	-2.45	OE
F8B6WN		0.4430	-0.0179	-1.21	0.6753	-0.0015	-0.09	OE
FBFRMX		0.4693	0.0083	0.57	0.6897	0.0128	0.72	WD
FQJZZ8	X	0.5367	0.0757	5.13	0.7533	0.0765	4.31	IC
G7VVD9		0.4560	-0.0049	-0.33	0.6610	-0.0159	-0.89	XX
GULMUU		0.4617	0.0007	0.05	0.6833	0.0065	0.37	OE
H66GLG		0.4307	-0.0302	-2.05	0.6585	-0.0184	-1.04	OE
HMFB34		0.4673	0.0064	0.43	0.6643	-0.0125	-0.71	OE
JKMBAD	X	0.5230	0.0621	4.20	0.7020	0.0251	1.42	OE
JUVEJ6		0.4447	-0.0163	-1.10	0.6500	-0.0269	-1.51	OE
KBEPQP		0.4550	-0.0059	-0.40	0.6850	0.0081	0.46	DR
KNYA6Q		0.4657	0.0047	0.32	0.6577	-0.0192	-1.08	OE
KPZXRW		0.4437	-0.0172	-1.17	0.6735	-0.0033	-0.19	OE
LAVUD9		0.4913	0.0304	2.06	0.6990	0.0221	1.25	OE
MMMGHB		0.4490	-0.0119	-0.81	0.6590	-0.0179	-1.01	OE
MU2TN2		0.4680	0.0071	0.48	0.6637	-0.0132	-0.74	OE
NWDZNZ		0.4627	0.0017	0.12	0.6883	0.0115	0.65	IC
P6CEFZ		0.4713	0.0104	0.71	0.6887	0.0118	0.67	WD
P6VTCP	X	0.4567	-0.0043	-0.29	0.7467	0.0698	3.94	OE
PDTKTH		0.4703	0.0094	0.64	0.6793	0.0025	0.14	OE
PWKQQP	*	0.4860	0.0251	1.70	0.7227	0.0458	2.58	IC
PWYPX8		0.4630	0.0021	0.14	0.6783	0.0015	0.08	XX
RJTU38		0.4700	0.0091	0.61	0.7067	0.0298	1.68	IC
T6NF9Y	X	0.4020	-0.0589	-3.99	0.6366	-0.0403	-2.27	OE
TH9UBY		0.4439	-0.0171	-1.16	0.6876	0.0107	0.60	OE
TVMGWA		0.4473	-0.0136	-0.92	0.6607	-0.0162	-0.91	OE
UB2K2N		0.4643	0.0034	0.23	0.6930	0.0161	0.91	OE
UD7EWF		0.4843	0.0234	1.59	0.6877	0.0108	0.61	GD
ULKUR4		0.4587	-0.0023	-0.15	0.6727	-0.0042	-0.24	OE

WebCode	Data Flag	Sample M59 Lab Mean	Sample M59 Diff. from Grand Mean	Sample M59 CPV	Sample M60 Lab Mean	Sample M60 Diff. from Grand Mean	Sample M60 CPV	Method
VJ8DKB		0.4413	-0.0196	-1.33	0.6403	-0.0365	-2.06	OE
VXCVQP		0.4610	0.0001	0.01	0.6817	0.0048	0.27	OE
VYJMTQ		0.4600	-0.0009	-0.06	0.6833	0.0065	0.37	WD
W772JQ		0.4683	0.0074	0.50	0.6990	0.0221	1.25	OE
WWWV6E		0.4500	-0.0109	-0.74	0.6767	-0.0002	-0.01	IC
X6LFX7		0.4557	-0.0053	-0.36	0.6710	-0.0059	-0.33	IC
YFMTTB		0.4800	0.0191	1.29	0.6800	0.0031	0.18	OE

Summary Statistics

	Sample M59		Sample M60	
Grand Means	0.4609	Percent	0.6769	Percent
Stnd Dev Btwn Labs	0.0148	Percent	0.0177	Percent

Samples M59, M60 : AISI 310, AISI 310

Statistics based on 47 of 54 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #184

4K6HAQ (X) - Data for both samples are high.

4KQ2HU (X) - Data for both samples are high. Inconsistent within the determinations of both samples.

7EPTTC (X) - Data for sample M59 are high.

FQJZZ8 (X) - Data for both samples are high. Inconsistent within the determinations of both samples.

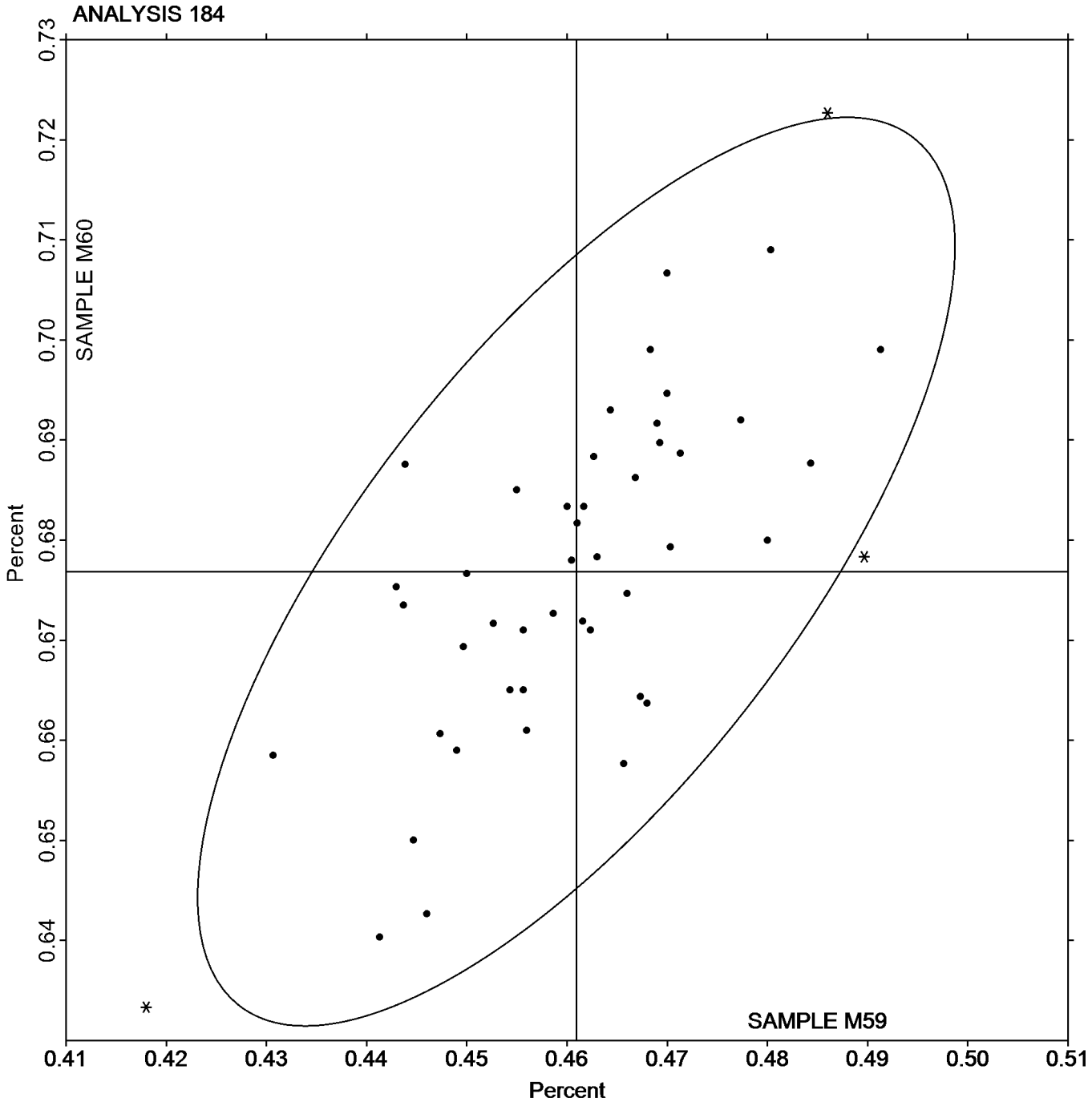
JKMBAD (X) - Data for sample M59 are high. Inconsistent within the determinations of sample M60.

P6VTCP (X) - Data for sample M60 are high.

T6NF9Y (X) - Data for sample M59 are low. Inconsistent within the determinations of both samples.

SAMPLE M59
0.4609 Percent

SAMPLE M60
0.6769 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 185

Corrosion Resistant Steel, Element #6
COBALT (Co)

Cycle 126
2nd Qtr 2019

		Sample M59			Sample M60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ	*	0.1603	0.0201	2.51	0.1187	0.0215	3.16	GD
27H8CN		0.1413	0.0011	0.13	0.0957	-0.0015	-0.22	IC
2WYLBZ		0.1430	0.0027	0.34	0.0933	-0.0038	-0.56	WD
4B9B3X		0.1417	0.0014	0.18	0.1028	0.0056	0.83	OE
4CVWNT		0.1397	-0.0006	-0.07	0.1033	0.0062	0.91	XX
4K6HAQ	X	0.1890	0.0487	6.09	0.3877	0.2905	42.71	OE
4KQ2HU	X	0.0926	-0.0477	-5.96	0.0803	-0.0169	-2.48	IC
4QH4NE		0.1333	-0.0069	-0.87	0.0887	-0.0085	-1.25	WD
642BVZ	X	0.1409	0.0006	0.08	0.5122	0.4151	61.02	XX
6YEQJT		0.1388	-0.0014	-0.18	0.0964	-0.0007	-0.11	OE
738EBJ		0.1303	-0.0099	-1.24	0.0920	-0.0052	-0.76	WD
7EPTTC		0.1500	0.0097	1.22	0.1100	0.0128	1.89	GD
7UT27L		0.1400	-0.0003	-0.03	0.0957	-0.0015	-0.22	OE
8EWUWQ		0.1393	-0.0009	-0.12	0.0934	-0.0037	-0.55	XR
96MNE2		0.1415	0.0012	0.15	0.0965	-0.0007	-0.10	WD
9X7P8H		0.1340	-0.0063	-0.78	0.0890	-0.0082	-1.20	WD
AFRQLK		0.1467	0.0064	0.80	0.1047	0.0075	1.10	OE
BAE8VQ		0.1347	-0.0056	-0.70	0.0930	-0.0042	-0.61	OE
DHBPUB		0.1323	-0.0079	-0.99	0.0937	-0.0035	-0.51	OE
F8B6WN		0.1340	-0.0063	-0.78	0.0950	-0.0022	-0.32	OE
FBFRMX		0.1401	-0.0002	-0.02	0.0964	-0.0008	-0.12	WD
FQJZZ8	*	0.1287	-0.0116	-1.45	0.0793	-0.0178	-2.62	IC
G7VVD9	*	0.1200	-0.0203	-2.53	0.0863	-0.0108	-1.59	OE
GULMUU		0.1540	0.0137	1.72	0.0977	0.0005	0.07	OE
H66GLG		0.1403	0.0000	0.00	0.0997	0.0025	0.37	WD
HMFB34		0.1487	0.0084	1.05	0.1100	0.0128	1.89	OE
JKMBAD		0.1583	0.0181	2.26	0.1053	0.0082	1.20	OE
KNYA6Q		0.1417	0.0014	0.18	0.0970	-0.0002	-0.02	OE
KPZXRW		0.1356	-0.0047	-0.58	0.0943	-0.0029	-0.42	OE
LAVUD9		0.1393	-0.0009	-0.12	0.0957	-0.0015	-0.22	OE
MMMGHB		0.1350	-0.0053	-0.66	0.0960	-0.0012	-0.17	XX
MU2TN2		0.1433	0.0031	0.38	0.1017	0.0045	0.66	OE
NWDZNZ		0.1430	0.0027	0.34	0.1000	0.0028	0.42	IC
P6CEFZ		0.1403	0.0001	0.01	0.0977	0.0005	0.07	WD
P6VTCP		0.1500	0.0097	1.22	0.1000	0.0028	0.42	OE
PDTKTH		0.1390	-0.0013	-0.16	0.0967	-0.0004	-0.06	OE
PWKQQP		0.1513	0.0111	1.38	0.1043	0.0072	1.06	IC
PWYPX8		0.1422	0.0019	0.24	0.0969	-0.0003	-0.04	XX
RJTU38		0.1500	0.0097	1.22	0.1000	0.0028	0.42	IC
T6NF9Y		0.1386	-0.0017	-0.21	0.0900	-0.0071	-1.05	OE
TH9UBY		0.1408	0.0005	0.06	0.0956	-0.0016	-0.23	OE
TVMGWA		0.1313	-0.0089	-1.12	0.0923	-0.0048	-0.71	OE
UB2K2N		0.1233	-0.0169	-2.12	0.0893	-0.0078	-1.15	OE
ULKUR4		0.1323	-0.0079	-0.99	0.0933	-0.0038	-0.56	OE
VJ8DKB		0.1403	0.0001	0.01	0.0970	-0.0002	-0.03	XX
VYJMTQ		0.1373	-0.0029	-0.37	0.0947	-0.0025	-0.37	WD
W772JQ		0.1400	-0.0003	-0.03	0.0983	0.0012	0.17	OE

WebCode	Data Flag	Sample M59 Lab Mean	Sample M59 Diff. from Grand Mean	Sample M59 CPV	Sample M60 Lab Mean	Sample M60 Diff. from Grand Mean	Sample M60 CPV	Method
WWWV6E		0.1403	0.0001	0.01	0.0977	0.0005	0.07	IC
X6LFX7		0.1363	-0.0039	-0.49	0.0913	-0.0058	-0.86	IC
YFMTTB		0.1500	0.0097	1.22	0.1100	0.0128	1.89	OE

Summary Statistics

	Sample M59		Sample M60	
Grand Means	0.1403	Percent	0.0972	Percent
Stnd Dev Btwn Labs	0.0080	Percent	0.0068	Percent

Samples M59, M60 : AISI 310, AISI 310

Statistics based on 47 of 50 reporting participants

Key to Method Codes Reported by Participants

GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

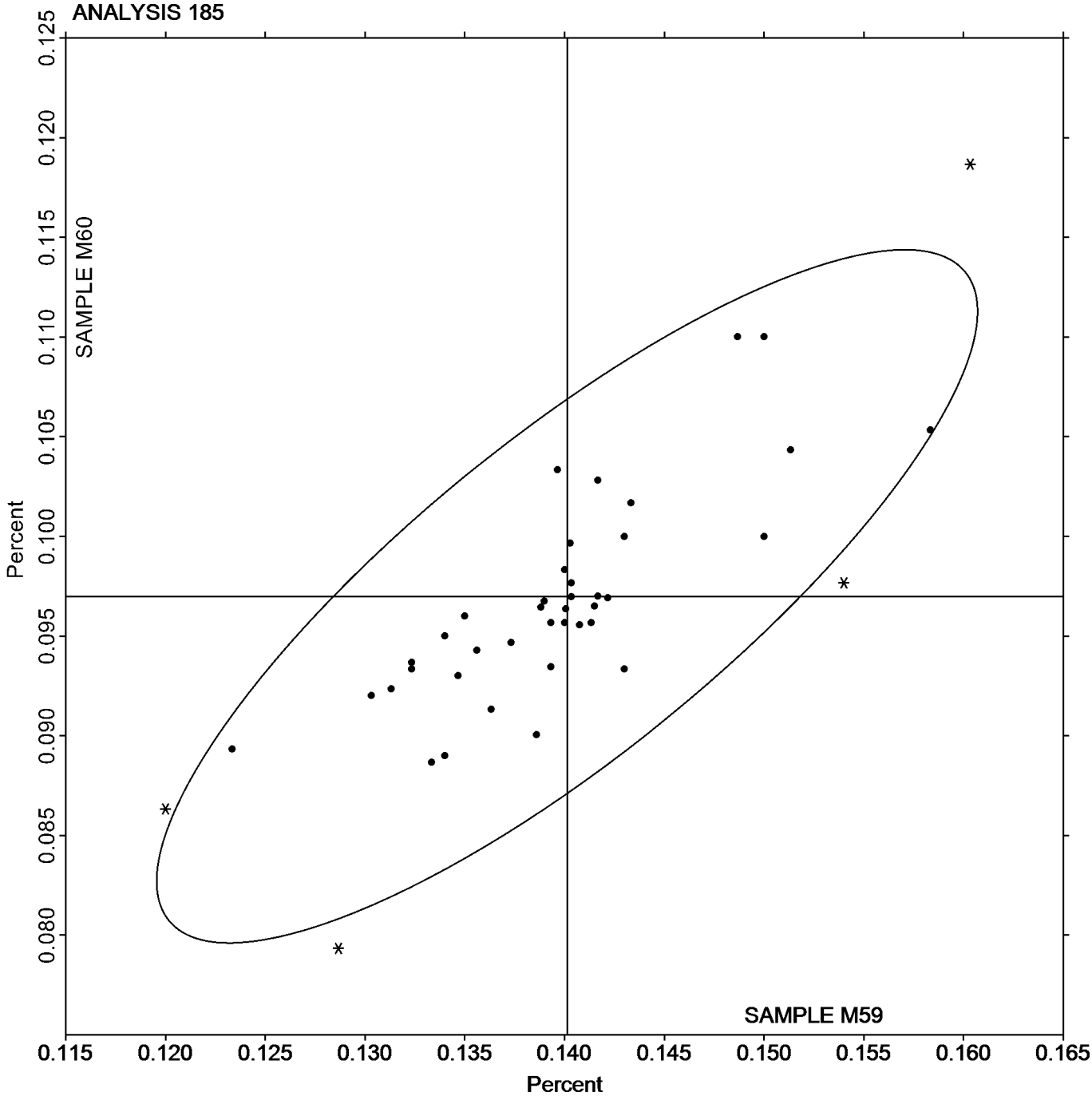
Comments on Assigned Data Flags for Test #185

4K6HAQ (X) - Data for both samples are high. Data for sample M60 appears to contain a typographical error.

4KQ2HU (X) - Data for sample M59 are low.

642BVZ (X) - Data for sample M60 are extreme.

SAMPLE M59	SAMPLE M60
0.1403 Percent	0.0972 Percent



		Sample M59			Sample M60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ		19.90	-0.17	-1.61	19.50	0.00	-0.03	GD
27H8CN		20.20	0.13	1.25	19.63	0.13	0.86	GR
2WYLBZ		20.07	0.01	0.05	19.57	0.06	0.42	XX
4B9B3X	X	19.33	-0.74	-7.01	18.82	-0.69	-4.59	OE
4CVWNT	X	20.74	0.67	6.39	20.06	0.56	3.72	XX
4K6HAQ		20.16	0.09	0.87	19.56	0.05	0.35	OE
4KQ2HU		20.16	0.09	0.85	19.71	0.20	1.34	IC
4QH4NE		20.08	0.01	0.14	19.53	0.02	0.15	WD
642BVZ		20.04	-0.03	-0.28	19.50	-0.01	-0.04	OE
6YEQJT		20.09	0.02	0.20	19.49	-0.01	-0.08	WD
738EBJ		20.13	0.06	0.55	19.58	0.08	0.52	WD
7EPTTC		20.30	0.23	2.20	19.87	0.36	2.41	GD
7UT27L		20.19	0.12	1.15	19.80	0.30	1.97	OE
8EWUWQ		20.08	0.01	0.06	19.48	-0.03	-0.17	XR
96MNE2		19.96	-0.11	-1.08	19.41	-0.09	-0.63	WD
9X7P8H		19.95	-0.12	-1.15	19.39	-0.11	-0.76	WD
AFRQLK		20.21	0.14	1.34	19.59	0.09	0.57	OE
BAE8VQ	X	18.88	-1.19	-11.36	18.39	-1.11	-7.41	OE
DHBPUB		20.30	0.23	2.20	19.71	0.21	1.37	OE
F8B6WN	X	17.12	-2.95	-28.06	19.39	-0.12	-0.79	OE
FBFRMX		20.08	0.01	0.11	19.52	0.01	0.09	XX
FQJZZ8	X	19.54	-0.53	-5.04	18.76	-0.74	-4.97	IC
G7VVD9		20.01	-0.06	-0.59	19.42	-0.08	-0.54	XX
GULMUU		19.95	-0.12	-1.17	19.42	-0.08	-0.54	OE
H66GLG		20.06	-0.01	-0.07	19.53	0.02	0.15	WD
HBZNPW		20.04	-0.02	-0.24	19.47	-0.03	-0.20	WC
HMFB34		20.16	0.09	0.83	19.58	0.07	0.48	OE
JKMBAD	X	19.31	-0.76	-7.20	19.31	-0.19	-1.28	OE
JUVEJ6		20.07	0.00	0.04	19.48	-0.02	-0.17	OE
KBEPQP		20.06	-0.01	-0.09	19.32	-0.18	-1.21	DR
KNYA6Q		20.12	0.05	0.49	19.52	0.01	0.08	OE
KPZXRW		20.15	0.08	0.77	19.50	-0.01	-0.06	OE
LAVUD9		20.14	0.07	0.68	19.73	0.23	1.50	OE
MMMGHB		19.92	-0.15	-1.42	19.62	0.12	0.77	OE
MU2TN2		20.11	0.04	0.36	19.51	0.00	0.00	OE
NWDZNZ		19.93	-0.14	-1.29	19.38	-0.12	-0.83	IC
P6CEFZ		20.07	0.00	0.04	19.46	-0.04	-0.29	WD
P6VTCP		20.10	0.03	0.29	19.43	-0.07	-0.48	OE
PDTKTH		20.05	-0.02	-0.18	19.45	-0.05	-0.34	OE
PWKQQP	X	20.47	0.40	3.82	20.08	0.58	3.83	IC
PWYPX8		19.93	-0.13	-1.28	19.37	-0.13	-0.89	XX
RJTU38		20.10	0.03	0.29	19.23	-0.27	-1.81	IC
T6NF9Y		20.17	0.10	0.93	19.74	0.23	1.55	OE
TH9UBY	X	20.52	0.45	4.31	19.95	0.44	2.95	OE
TVMGWA		19.98	-0.09	-0.88	19.34	-0.16	-1.10	OE
UB2K2N	*	19.81	-0.26	-2.50	19.02	-0.48	-3.23	OE
UD7EWF	X	20.90	0.83	7.91	20.13	0.63	4.19	GD

WebCode	Data Flag	Sample M59 Lab Mean	Sample M59 Diff. from Grand Mean	Sample M59 CPV	Sample M60 Lab Mean	Sample M60 Diff. from Grand Mean	Sample M60 CPV	Method
ULKUR4		20.09	0.02	0.23	19.50	0.00	-0.03	OE
VJ8DKB		20.03	-0.04	-0.40	19.48	-0.03	-0.19	OE
VXCVQP		19.89	-0.18	-1.74	19.30	-0.20	-1.34	OE
VYJMTQ		20.01	-0.06	-0.56	19.46	-0.04	-0.28	WD
W772JQ		20.04	-0.03	-0.28	19.38	-0.12	-0.81	OE
WWWV6E		20.03	-0.04	-0.34	19.63	0.13	0.86	IC
X6LFX7		20.03	-0.04	-0.34	19.45	-0.05	-0.37	IC
YFMTTB		20.23	0.16	1.56	19.66	0.16	1.03	OE

Summary Statistics

	Sample M59		Sample M60	
Grand Means	20.07	Percent	19.50	Percent
Stnd Dev Btwn Labs	0.10	Percent	0.15	Percent

Samples M59, M60 : AISI 310, AISI 310

Statistics based on 46 of 55 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
GR	Gravimetry	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	WC	Wet Chemistry
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used for Current Element		

Comments on Assigned Data Flags for Test #186

4B9B3X (X) - Data for both samples are low.

4CVWNT (X) - Data for both samples are high. Inconsistent within the determinations of sample M60.

BAE8VQ (X) - Data for both samples are low.

F8B6WN (X) - Data for sample M59 are very low.

FQJZZ8 (X) - Data for both samples are low. Inconsistent within the determinations of sample M59.

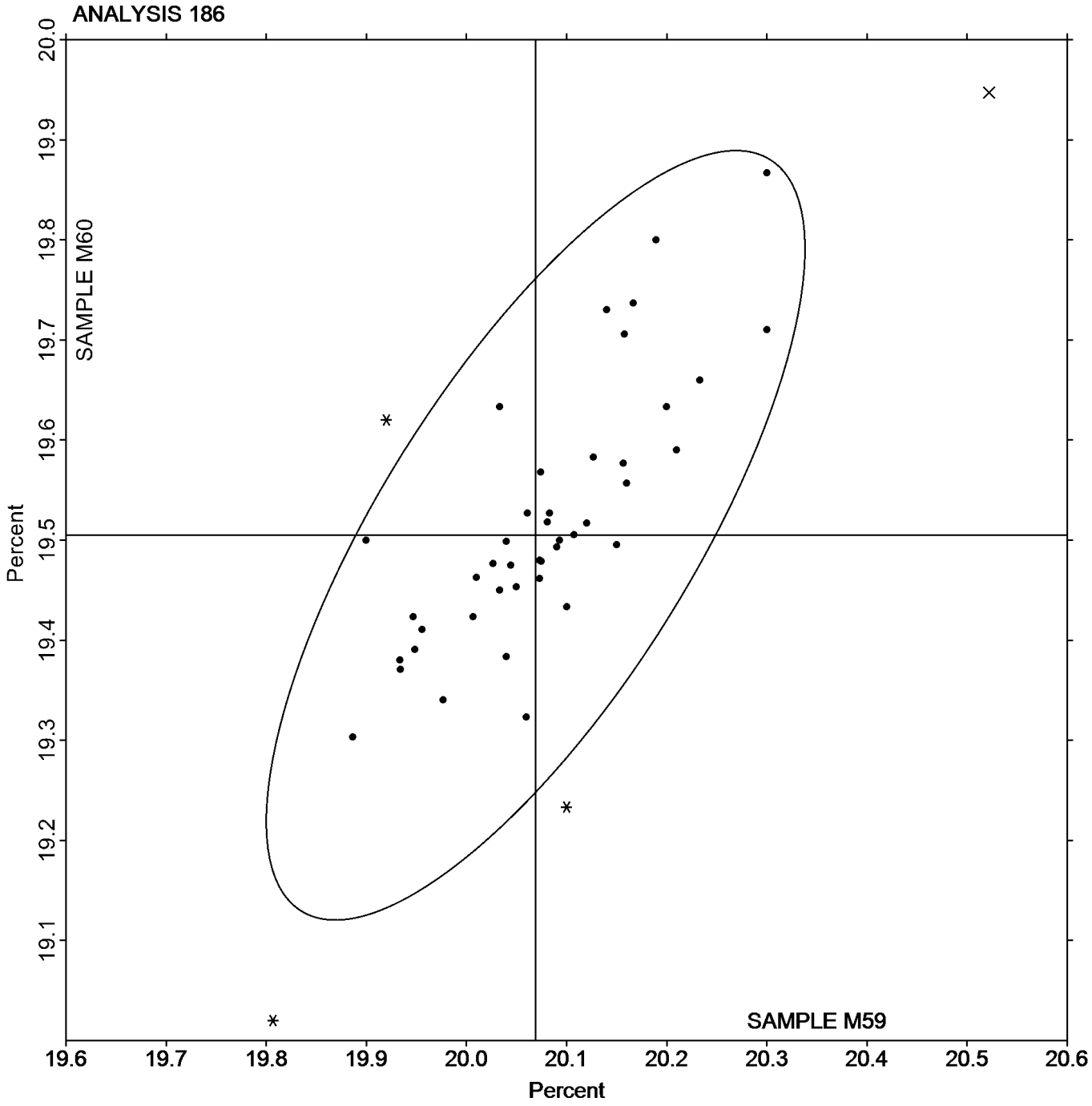
JKMBAD (X) - Data for sample M59 are low.

PWKQQP (X) - Data for both samples are high. Inconsistent within the determinations of sample M59.

TH9UBY (X) - Data for both samples are high. Inconsistent within the determinations of sample M60.

UD7EWF (X) - Data for both samples are high.

SAMPLE M59	SAMPLE M60
20.07 Percent	19.50 Percent



		Sample M59			Sample M60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ		24.73	0.10	0.73	24.63	0.16	1.06	GD
27H8CN		24.40	-0.23	-1.63	24.23	-0.24	-1.53	TI
2WYLBZ		24.71	0.08	0.56	24.54	0.07	0.47	WD
4B9B3X		24.76	0.13	0.92	24.56	0.09	0.61	OE
4CVWNT		24.57	-0.06	-0.40	24.58	0.11	0.72	XX
4K6HAQ		24.43	-0.20	-1.42	24.39	-0.08	-0.53	OE
4KQ2HU		24.88	0.25	1.76	24.82	0.35	2.24	IC
4QH4NE		24.81	0.18	1.25	24.66	0.19	1.21	WD
642BVZ		24.63	0.00	0.00	24.32	-0.15	-0.97	XX
6YEQJT		24.70	0.07	0.47	24.50	0.03	0.17	WD
738EBJ		24.72	0.09	0.66	24.55	0.08	0.50	WD
7EPTTC	X	25.60	0.97	6.86	25.17	0.70	4.51	GD
7UT27L		24.36	-0.27	-1.93	24.17	-0.30	-1.93	OE
8EWUWQ		24.66	0.03	0.20	24.45	-0.02	-0.11	XR
96MNE2		24.62	-0.01	-0.08	24.45	-0.02	-0.15	WD
9X7P8H		24.69	0.06	0.41	24.53	0.06	0.39	WD
AFRQLK		24.30	-0.33	-2.36	24.15	-0.32	-2.06	OE
BAE8VQ	X	26.00	1.37	9.71	25.65	1.18	7.63	OE
DHBPUB		24.35	-0.28	-1.98	24.10	-0.37	-2.39	OE
F8B6WN	X	23.08	-1.55	-10.96	24.39	-0.08	-0.53	OE
FBFRMX		24.70	0.07	0.51	24.51	0.04	0.27	WD
FQJZZ8	X	23.20	-1.43	-10.09	22.27	-2.20	-14.22	IC
GULMUU		24.80	0.17	1.20	24.66	0.19	1.21	OE
H66GLG		24.54	-0.09	-0.61	24.38	-0.09	-0.55	WD
HBZNPW		24.62	-0.01	-0.05	24.45	-0.02	-0.14	WC
HMFB34		24.53	-0.10	-0.71	24.35	-0.12	-0.79	OE
JKMBAD	X	25.31	0.68	4.80	24.60	0.13	0.82	OE
JUVEJ6		24.73	0.10	0.70	24.69	0.22	1.45	OE
KBEPQP		24.48	-0.15	-1.06	24.42	-0.05	-0.34	DR
KNYA6Q		24.73	0.10	0.68	24.61	0.14	0.89	OE
KPZXRW		24.62	-0.01	-0.05	24.42	-0.05	-0.30	OE
LAVUD9	X	25.33	0.70	4.97	25.11	0.64	4.16	OE
MMMGHB		24.46	-0.17	-1.18	24.48	0.01	0.09	OE
MU2TN2		24.78	0.15	1.04	24.59	0.12	0.77	OE
NWDZNZ		24.61	-0.02	-0.12	24.47	0.00	-0.02	IC
P6CEFZ		24.81	0.18	1.26	24.53	0.06	0.36	WD
P6VTCP		24.73	0.10	0.73	24.47	0.00	-0.02	OE
PDTKTH		24.61	-0.02	-0.14	24.42	-0.05	-0.32	OE
PWKQQP		24.46	-0.17	-1.23	24.24	-0.23	-1.48	IC
PWYPX8		24.61	-0.03	-0.18	24.44	-0.03	-0.22	XX
RJTU38		24.63	0.00	0.02	24.43	-0.04	-0.23	IC
T6NF9Y		24.87	0.24	1.67	24.63	0.16	1.04	OE
TH9UBY		24.44	-0.19	-1.35	24.29	-0.18	-1.19	OE
TVMGWA		24.75	0.12	0.82	24.55	0.08	0.50	OE
UB2K2N		24.75	0.12	0.85	24.75	0.28	1.79	OE
UD7EWF		24.60	-0.03	-0.21	24.53	0.06	0.41	GD
ULKUR4		24.54	-0.09	-0.64	24.32	-0.15	-0.97	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 187

Corrosion Resistant Steel, Element #8
CHROMIUM (Cr)

WebCode	Data Flag	Sample M59 Lab Mean	Sample M59 Diff. from Grand Mean	Sample M59 CPV	Sample M60 Lab Mean	Sample M60 Diff. from Grand Mean	Sample M60 CPV	Method
VJ8DKB		24.72	0.09	0.61	24.53	0.06	0.41	OE
VYJMTQ		24.66	0.03	0.22	24.58	0.11	0.69	WD
W772JQ		24.55	-0.08	-0.57	24.36	-0.11	-0.68	OE
WWWV6E		24.50	-0.13	-0.92	24.27	-0.20	-1.31	TI
X6LFX7		24.66	0.03	0.21	24.46	-0.01	-0.04	IC
YFMTTB		24.82	0.19	1.34	24.62	0.15	1.00	OE

Summary Statistics

	Sample M59		Sample M60	
Grand Means	24.63	Percent	24.47	Percent
Stnd Dev Btwn Labs	0.14	Percent	0.15	Percent

Samples M59, M60 : AISI 310, AISI 310

Statistics based on 47 of 53 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
TI	Titrimetry	WC	Wet Chemistry
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used for Current Element		

Comments on Assigned Data Flags for Test #187

7EPTTC (X) - Data for both samples are high. Possible Systematic Error.

BAE8VQ (X) - Data for both samples are high. Possible Systematic Error.

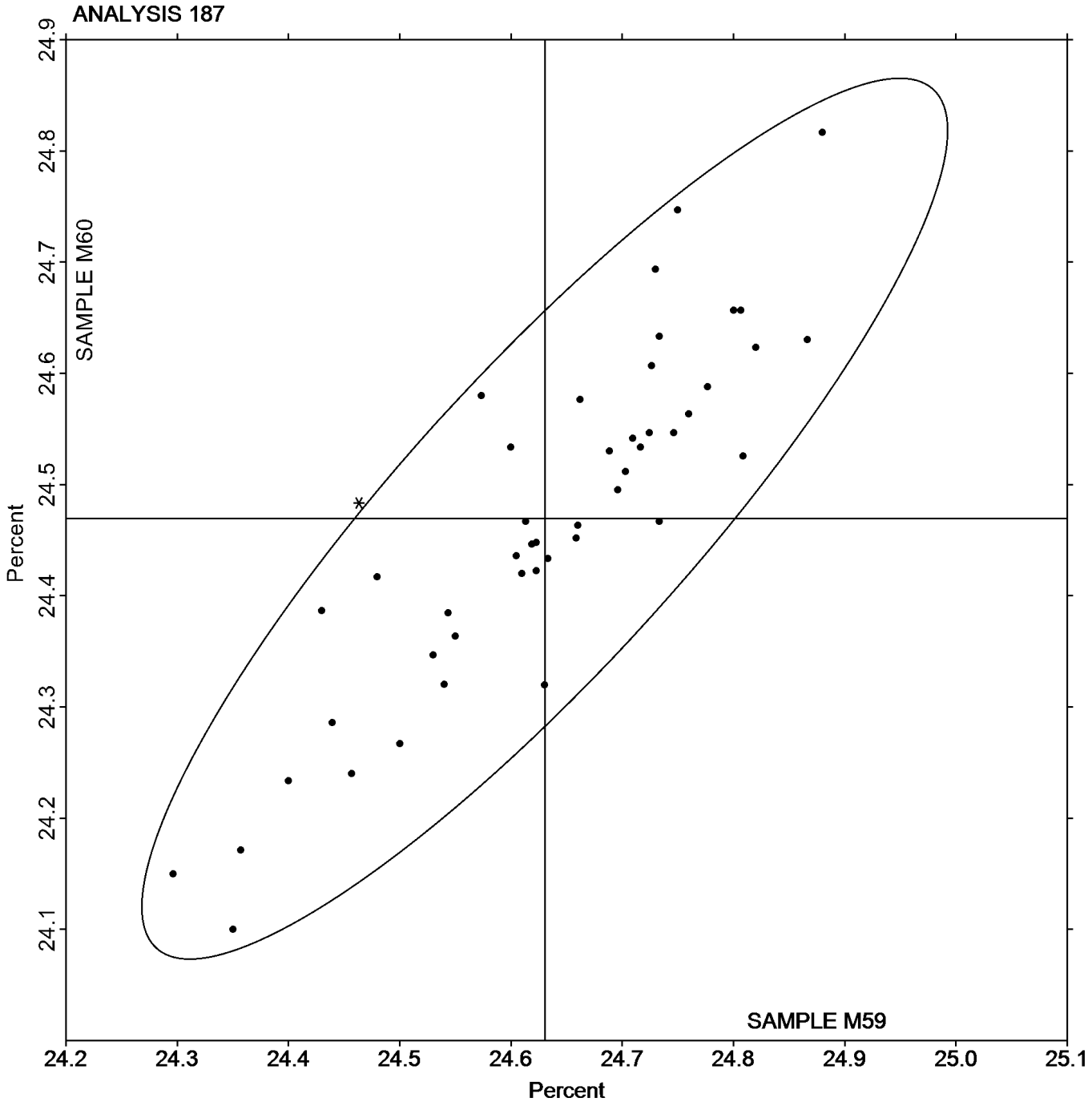
F8B6WN (X) - Data for sample M59 are low.

FQJZZ8 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample M59.

JKMBAD (X) - Data for sample M59 are high.

LAVUD9 (X) - Data for both samples are high. Possible Systematic Error.

SAMPLE M59	SAMPLE M60
24.63 Percent	24.47 Percent



		Sample M59			Sample M60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ		0.2497	-0.0035	-0.31	0.4843	-0.0073	-0.36	GD
27H8CN		0.2433	-0.0099	-0.86	0.4857	-0.0059	-0.30	IC
2WYLBZ		0.2547	0.0015	0.13	0.4977	0.0061	0.30	WD
4B9B3X		0.2600	0.0068	0.59	0.5157	0.0241	1.20	OE
4CVWNT		0.2757	0.0225	1.95	0.5170	0.0254	1.27	XX
4K6HAQ		0.2493	-0.0039	-0.34	0.4810	-0.0106	-0.53	OE
4KQ2HU		0.2617	0.0085	0.74	0.5080	0.0164	0.82	IC
4QH4NE		0.2527	-0.0005	-0.05	0.4973	0.0057	0.29	WD
642BVZ		0.2619	0.0087	0.75	0.5122	0.0206	1.03	XX
6YEQJT		0.2502	-0.0030	-0.26	0.4848	-0.0068	-0.34	WD
738EBJ		0.2573	0.0041	0.36	0.5030	0.0114	0.57	WD
7EPTTC		0.2800	0.0268	2.33	0.5300	0.0384	1.92	GD
7UT27L	*	0.2280	-0.0252	-2.19	0.4373	-0.0543	-2.71	OE
8EWUWQ		0.2468	-0.0064	-0.55	0.4891	-0.0025	-0.13	XR
96MNE2		0.2527	-0.0005	-0.04	0.4937	0.0021	0.10	WD
9X7P8H		0.2560	0.0028	0.24	0.5020	0.0104	0.52	WD
AFRQLK	X	0.3130	0.0598	5.20	0.5357	0.0441	2.20	OE
BAE8VQ		0.2667	0.0135	1.17	0.5040	0.0124	0.62	OE
DHBPUB		0.2540	0.0008	0.07	0.4883	-0.0033	-0.16	OE
F8B6WN		0.2293	-0.0239	-2.07	0.4600	-0.0316	-1.58	OE
FBFRMX		0.2538	0.0006	0.05	0.4953	0.0037	0.18	WD
FQJZZ8	X	0.2050	-0.0482	-4.19	0.4940	0.0024	0.12	IC
G7VVD9		0.2413	-0.0119	-1.03	0.4567	-0.0349	-1.75	XX
GULMUU	X	0.2400	-0.0132	-1.15	0.4097	-0.0819	-4.09	OE
H66GLG		0.2479	-0.0053	-0.46	0.4883	-0.0033	-0.17	WD
HMFB34		0.2570	0.0038	0.33	0.4753	-0.0163	-0.81	OE
JKMBAD	*	0.2260	-0.0272	-2.36	0.4810	-0.0106	-0.53	OE
KBEPQP		0.2367	-0.0165	-1.44	0.4703	-0.0213	-1.06	DR
KNYA6Q		0.2507	-0.0025	-0.22	0.4970	0.0054	0.27	OE
KPZXRW		0.2510	-0.0022	-0.19	0.5009	0.0093	0.47	OE
LAVUD9		0.2360	-0.0172	-1.49	0.4587	-0.0329	-1.65	OE
MMMGHB		0.2460	-0.0072	-0.63	0.4773	-0.0143	-0.71	OE
MU2TN2		0.2517	-0.0015	-0.13	0.4890	-0.0026	-0.13	OE
NWDZNZ		0.2477	-0.0055	-0.48	0.4983	0.0067	0.34	XX
P6CEFZ		0.2603	0.0071	0.62	0.5043	0.0127	0.64	WD
P6VTCP	*	0.2767	0.0235	2.04	0.4700	-0.0216	-1.08	OE
PDTKTH		0.2557	0.0025	0.21	0.4897	-0.0019	-0.10	OE
PWKQQP		0.2673	0.0141	1.23	0.5213	0.0297	1.49	IC
PWYPX8		0.2510	-0.0022	-0.19	0.5003	0.0087	0.44	XX
RJTU38		0.2533	0.0001	0.01	0.5000	0.0084	0.42	IC
T6NF9Y		0.2516	-0.0016	-0.14	0.4751	-0.0165	-0.83	OE
TH9UBY		0.2477	-0.0055	-0.48	0.4738	-0.0178	-0.89	OE
TVMGWA		0.2417	-0.0115	-1.00	0.4667	-0.0249	-1.25	OE
UB2K2N		0.2613	0.0081	0.71	0.5260	0.0344	1.72	OE
UD7EWF		0.2490	-0.0042	-0.37	0.4850	-0.0066	-0.33	GD
ULKUR4		0.2670	0.0138	1.20	0.5000	0.0084	0.42	OE
VJ8DKB	*	0.2750	0.0218	1.89	0.4633	-0.0283	-1.41	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 188

Corrosion Resistant Steel, Element #9
MOLYBDENUM (Mo)

		Sample M59			Sample M60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
VXCVQP		0.2787	0.0255	2.21	0.5333	0.0417	2.09	OE
VYJMTQ		0.2533	0.0001	0.01	0.4973	0.0057	0.29	WD
W772JQ		0.2757	0.0225	1.95	0.5027	0.0111	0.55	OE
WWWV6E		0.2427	-0.0105	-0.92	0.4697	-0.0219	-1.10	IC
X6LFX7		0.2413	-0.0119	-1.03	0.4703	-0.0213	-1.06	IC
YFMTTB	X	0.3000	0.0468	4.07	0.5667	0.0751	3.75	OE

Summary Statistics

	Sample M59		Sample M60	
Grand Means	0.2532	Percent	0.4916	Percent
Stnd Dev Btwn Labs	0.0115	Percent	0.0200	Percent

Samples M59, M60 : AISI 310, AISI 310

Statistics based on 46 of 53 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used for Current Element		

Comments on Assigned Data Flags for Test #188

AFRQLK (X) - Data for sample M59 are high.

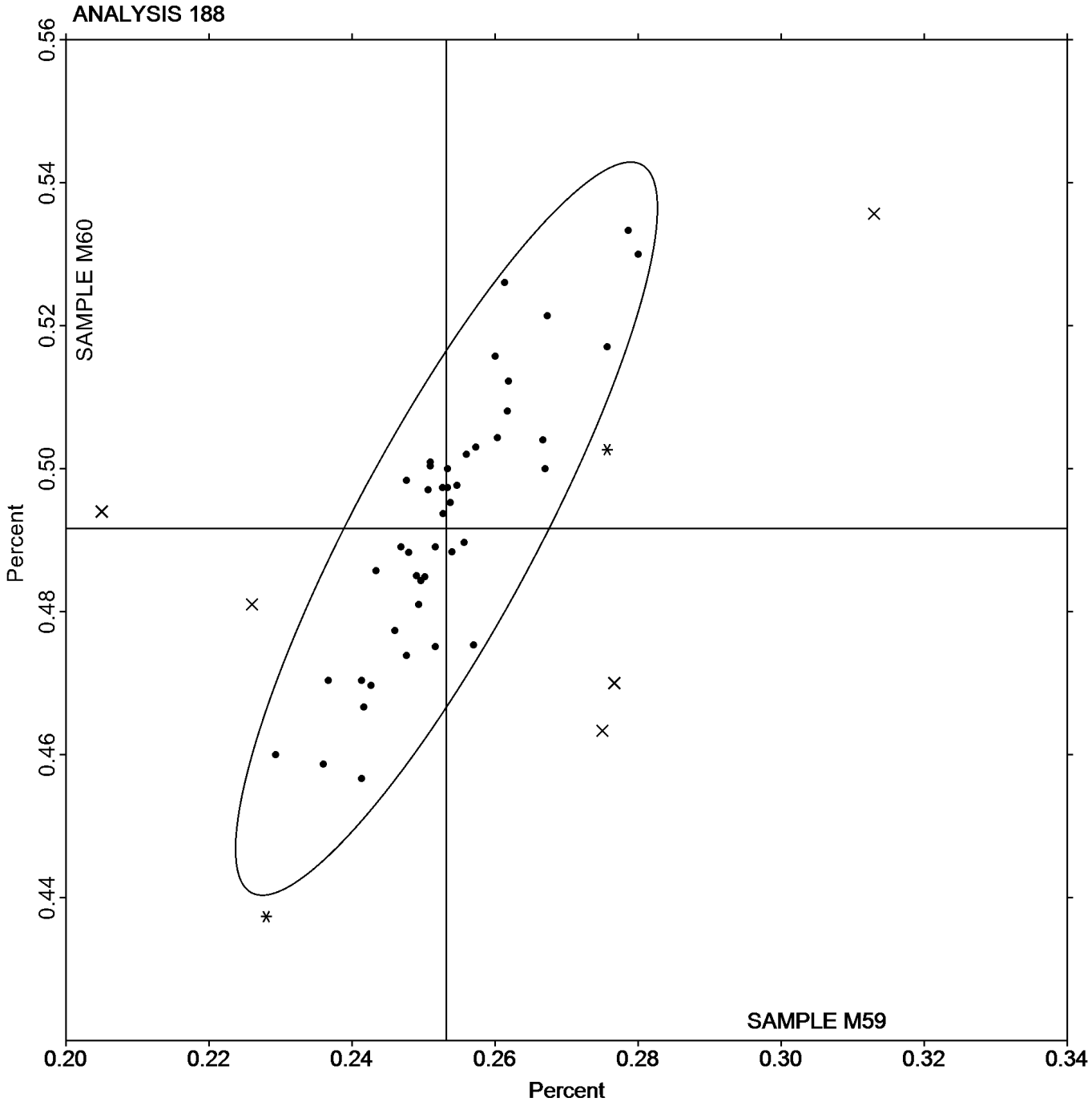
FQJZZ8 (X) - Data for sample M59 are low. Inconsistent within the determinations of sample M60.

GULMUU (X) - Data for sample M60 are low.

YFMTTB (X) - Data for both samples are high.

SAMPLE M59
0.2532 Percent

SAMPLE M60
0.4916 Percent



		Sample M59			Sample M60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
26YEVZ		0.1327	0.0003	0.04	0.2680	-0.0004	-0.04	GD
27H8CN		0.1283	-0.0041	-0.60	0.2610	-0.0074	-0.62	IC
2WYLBZ		0.1333	0.0009	0.14	0.2800	0.0116	0.97	WD
4B9B3X	*	0.1220	-0.0104	-1.53	0.2313	-0.0371	-3.11	OE
4CVWNT		0.1383	0.0059	0.87	0.2773	0.0089	0.75	XX
4K6HAQ		0.1217	-0.0107	-1.58	0.2553	-0.0131	-1.10	OE
4KQ2HU		0.1337	0.0013	0.20	0.2624	-0.0060	-0.51	IC
4QH4NE		0.1337	0.0013	0.19	0.2707	0.0022	0.19	WD
642BVZ		0.1390	0.0066	0.97	0.2687	0.0002	0.02	OE
6YEQJT		0.1322	-0.0002	-0.03	0.2684	0.0000	0.00	WD
738EBJ		0.1367	0.0043	0.63	0.2717	0.0032	0.27	WD
7EPTTC		0.1400	0.0076	1.12	0.2700	0.0016	0.13	GD
7UT27L		0.1307	-0.0017	-0.26	0.2517	-0.0168	-1.41	OE
8EWUWQ		0.1311	-0.0013	-0.20	0.2688	0.0004	0.03	XR
96MNE2		0.1350	0.0026	0.38	0.2665	-0.0019	-0.16	WD
9X7P8H		0.1357	0.0033	0.48	0.2710	0.0026	0.22	WD
AFRQLK		0.1340	0.0016	0.23	0.2790	0.0106	0.89	OE
BAE8VQ		0.1160	-0.0164	-2.42	0.2427	-0.0258	-2.16	OE
DHBPUB		0.1270	-0.0054	-0.80	0.2722	0.0037	0.31	OE
F8B6WN	*	0.1137	-0.0187	-2.76	0.2443	-0.0241	-2.02	OE
FBFRMX		0.1359	0.0035	0.51	0.2737	0.0053	0.45	WD
FQJZZ8	X	0.1177	-0.0147	-2.17	0.1637	-0.1048	-8.79	IC
G7VVD9		0.1337	0.0013	0.19	0.2687	0.0002	0.02	OE
GULMUU		0.1350	0.0026	0.38	0.2757	0.0072	0.61	OE
H66GLG		0.1423	0.0099	1.46	0.2810	0.0125	1.05	WD
HMFB34		0.1360	0.0036	0.53	0.2753	0.0069	0.58	OE
JKMBAD	X	0.1660	0.0336	4.95	0.2697	0.0012	0.10	OE
KBEPQP		0.1343	0.0019	0.28	0.2887	0.0202	1.70	DR
KNYA6Q		0.1337	0.0013	0.19	0.2850	0.0166	1.39	OE
KPZXRW		0.1357	0.0033	0.49	0.2709	0.0025	0.21	OE
LAVUD9	X	0.0653	-0.0671	-9.88	0.1687	-0.0998	-8.37	OE
MMMGHB		0.1350	0.0026	0.38	0.2700	0.0016	0.13	OE
MU2TN2		0.1233	-0.0091	-1.34	0.2780	0.0096	0.80	OE
NWDZNZ		0.1293	-0.0031	-0.45	0.2637	-0.0048	-0.40	IC
P6CEFZ		0.1370	0.0046	0.68	0.2747	0.0062	0.52	WD
P6VTCP		0.1257	-0.0067	-0.99	0.2370	-0.0314	-2.64	OE
PDTKTH		0.1320	-0.0004	-0.06	0.2483	-0.0201	-1.69	OE
PWKQQP		0.1357	0.0033	0.48	0.2753	0.0069	0.58	IC
PWYPX8		0.1377	0.0053	0.77	0.2683	-0.0001	-0.01	XX
RJTU38		0.1300	-0.0024	-0.35	0.2700	0.0016	0.13	IC
T6NF9Y		0.1173	-0.0151	-2.23	0.2643	-0.0042	-0.35	OE
TH9UBY		0.1241	-0.0083	-1.22	0.2654	-0.0030	-0.25	OE
TVMGWA		0.1377	0.0053	0.77	0.2683	-0.0001	-0.01	OE
UB2K2N		0.1353	0.0029	0.43	0.2790	0.0106	0.89	OE
ULKUR4		0.1330	0.0006	0.09	0.2710	0.0026	0.22	OE
VJ8DKB		0.1313	-0.0011	-0.16	0.2770	0.0086	0.72	OE
VXCVQP		0.1357	0.0033	0.48	0.2697	0.0012	0.10	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 189

Corrosion Resistant Steel, Element #10
COPPER (Cu)

Cycle 126
2nd Qtr 2019

WebCode	Data Flag	Sample M59 Lab Mean	Sample M59 Diff. from Grand Mean	Sample M59 CPV	Sample M60 Lab Mean	Sample M60 Diff. from Grand Mean	Sample M60 CPV	Method
VYJMTQ		0.1500	0.0176	2.59	0.2900	0.0216	1.81	WD
W772JQ		0.1297	-0.0027	-0.40	0.2733	0.0049	0.41	OE
WWWV6E		0.1317	-0.0007	-0.11	0.2700	0.0016	0.13	IC
X6LFX7		0.1320	-0.0004	-0.06	0.2693	0.0009	0.08	IC
YFMTTB		0.1433	0.0109	1.61	0.2700	0.0016	0.13	OE

Summary Statistics

	Sample M59		Sample M60	
Grand Means	0.1324	Percent	0.2684	Percent
Stnd Dev Btwn Labs	0.0068	Percent	0.0119	Percent

Samples M59, M60 : AISI 310, AISI 310

Statistics based on 49 of 52 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used for Current Element		

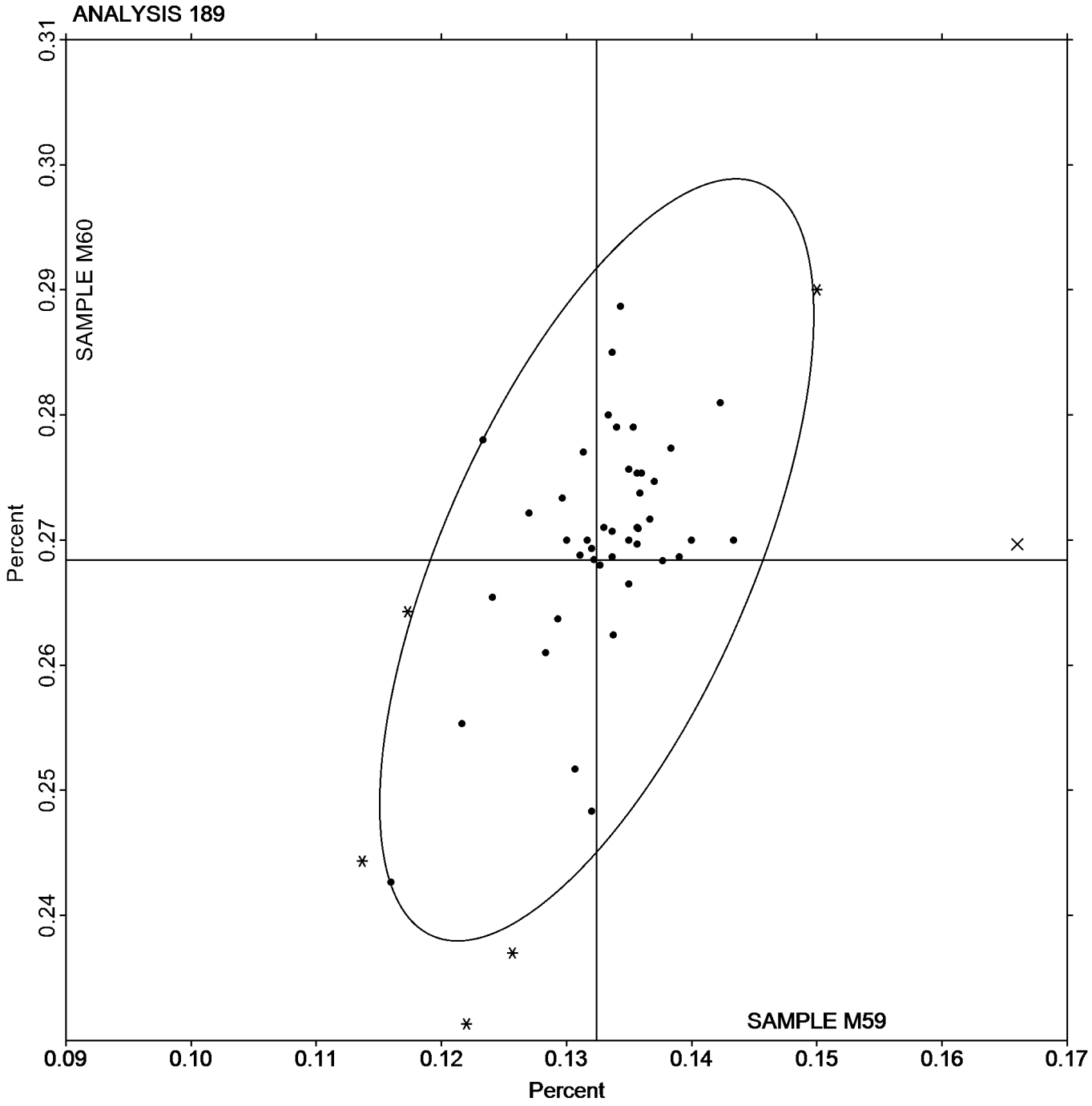
Comments on Assigned Data Flags for Test #189

FQJZZ8 (X) - Data for sample M60 are low.

JKMBAD (X) - Data for sample M59 are high.

LAVUD9 (X) - Data for both samples are low.

SAMPLE M59	SAMPLE M60
0.1324 Percent	0.2684 Percent



WebCode	Data Flag	Sample A59 Lab Mean	Sample A59 Diff. from Grand Mean	Sample A59 CPV	Sample A60 Lab Mean	Sample A60 Diff. from Grand Mean	Sample A60 CPV	Method
27H8CN		0.0120	-0.0008	-0.22	0.0323	-0.0004	-0.16	IC
28T8ZG		0.0124	-0.0003	-0.10	0.0310	-0.0017	-0.64	OE
2PCZY8	X	0.00830	-0.0045	-1.26	0.0210	-0.0118	-4.38	OE
2PWJ7Y		0.0108	-0.0019	-0.55	0.0317	-0.0011	-0.39	OE
4K6HAQ		0.0107	-0.0020	-0.57	0.0316	-0.0012	-0.43	OE
87DUY2		0.0132	0.0005	0.13	0.0343	0.0015	0.57	IC
8NBARE		0.0164	0.0037	1.03	0.0360	0.0032	1.21	OE
BLEYEZ		0.0133	0.0006	0.16	0.0339	0.0012	0.44	IC
D7J4PF		0.00787	-0.0049	-1.38	0.0298	-0.0030	-1.10	OE
DHBPUB	M	No Data Reported			0.0340	0.0012	0.46	OE
DXFAYT		0.0142	0.0014	0.39	0.0339	0.0011	0.41	OE
EAVERA	*	0.0200	0.0072	2.03	0.0400	0.0072	2.70	IC
F4FEQC		0.0117	-0.0011	-0.31	0.0320	-0.0008	-0.28	OE
GULMUU		0.00403	-0.0087	-2.46	0.0287	-0.0041	-1.52	OE
H3KBKY		0.0115	-0.0013	-0.37	0.0325	-0.0003	-0.11	OE
KBEPQP		0.0150	0.0022	0.61	0.0337	0.0009	0.35	OE
KNYA6Q		0.0129	0.0002	0.04	0.0333	0.0005	0.19	OE
NBTX2M		0.0162	0.0034	0.97	0.0326	-0.0002	-0.07	OE
P6VTCP		0.0140	0.0012	0.34	0.0320	-0.0008	-0.28	OE
TCQW3H		0.0134	0.0007	0.19	0.0331	0.0003	0.12	OE
TURWYN		0.0147	0.0020	0.55	0.0331	0.0004	0.14	OE
U2QT7R		0.0136	0.0008	0.23	0.0340	0.0012	0.45	OE
VJ8DKB		0.00610	-0.0067	-1.88	0.0259	-0.0068	-2.54	OE
VKA8WA		0.0187	0.0059	1.65	0.0357	0.0029	1.09	IC
WV372L		0.0138	0.0011	0.30	0.0345	0.0017	0.64	OE
YFMTTB		0.0100	-0.0028	-0.78	0.0307	-0.0021	-0.78	OE

Summary Statistics

	Sample A59		Sample A60	
Grand Means	0.0128	Percent	0.0328	Percent
Stnd Dev Btwn Labs	0.0036	Percent	0.0027	Percent

Samples A59, A60 : AA6060, AA6060

Statistics based on 24 of 26 reporting participants

Key to Method Codes Reported by Participants

IC Spectrometry - Inductively Coupled Plasma (ICP) OE Spectrometry - Optical Emission (OES)

Comments on Assigned Data Flags for Test #190

2PCZY8 (X) - Data for sample A60 are low. Inconsistent within the determinations of sample A60.

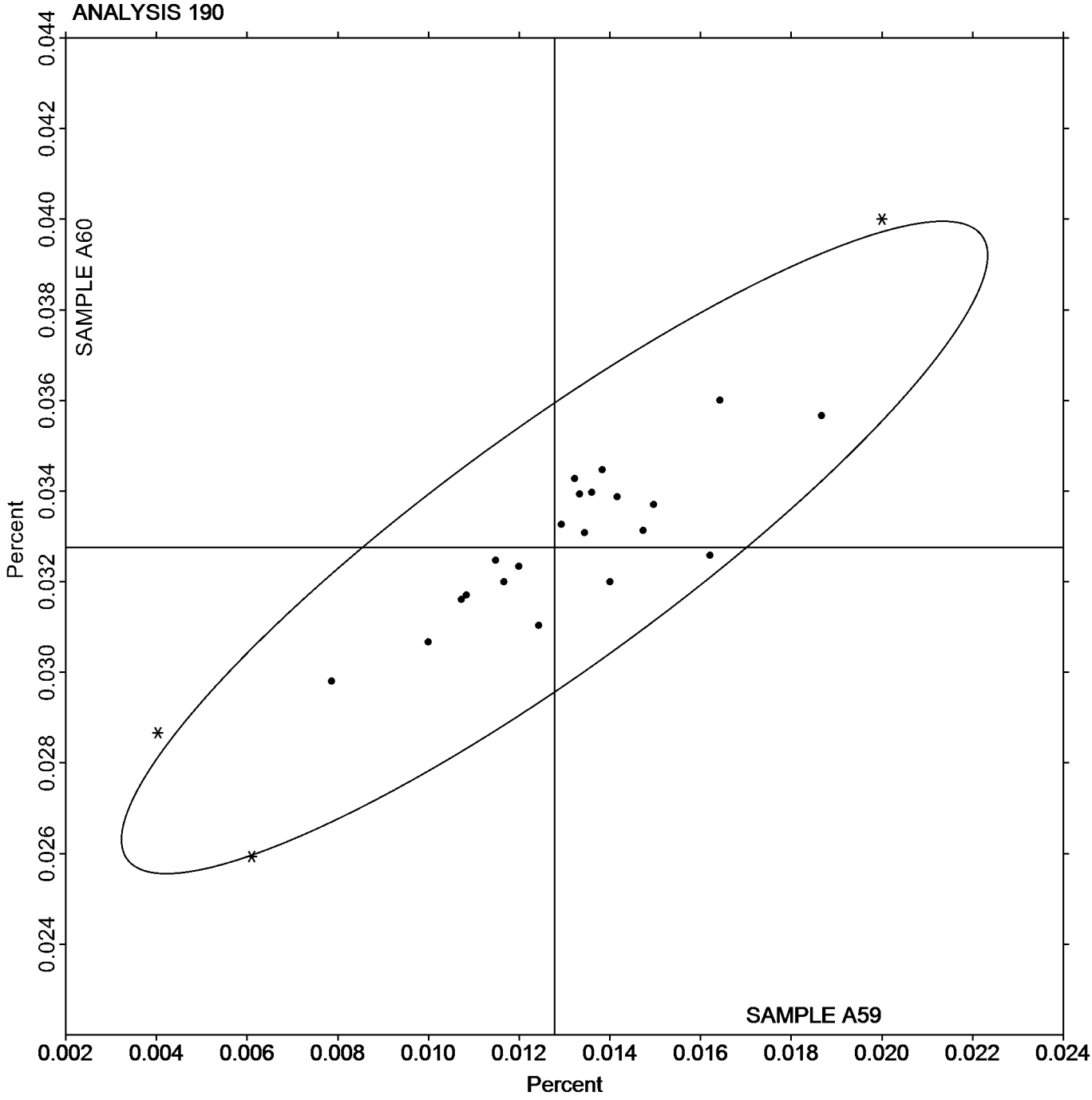
DHBPUB (M) - Participant did not submit data for sample A59.

SAMPLE A59

0.0128 Percent

SAMPLE A60

0.0328 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 191

Aluminum, Element #2
COPPER (Cu)

Cycle 126
2nd Qtr
2019

		Sample A59			Sample A60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
27H8CN		0.0147	0.0004	0.25	0.0220	-0.0002	-0.09	IC
28T8ZG		0.0117	-0.0025	-1.53	0.0181	-0.0040	-2.00	OE
2PCZY8		0.0140	-0.0003	-0.16	0.0232	0.0011	0.52	OE
2PWJ7Y		0.0158	0.0016	0.95	0.0248	0.0027	1.32	OE
4K6HAQ		0.0142	0.0000	-0.02	0.0218	-0.0003	-0.17	OE
87DUY2	*	0.00947	-0.0048	-2.90	0.0174	-0.0048	-2.39	IC
8NBARE		0.0118	-0.0024	-1.47	0.0206	-0.0015	-0.76	OE
BLEYEZ		0.0145	0.0002	0.13	0.0224	0.0002	0.11	IC
D7J4PF	*	0.0113	-0.0030	-1.82	0.0229	0.0008	0.38	OE
DHBPUB		0.0143	0.0001	0.05	0.0220	-0.0002	-0.09	OE
DXFAYT		0.0135	-0.0008	-0.46	0.0210	-0.0012	-0.60	OE
EAVERA	X	0.0200	0.0057	3.48	0.0233	0.0012	0.57	IC
F4FEQC	X	0.0273	0.0131	7.92	0.0310	0.0088	4.37	OE
GULMUU		0.0140	-0.0003	-0.16	0.0213	-0.0008	-0.41	OE
H3KBKY		0.0143	0.0000	0.02	0.0224	0.0002	0.12	OE
KBEPQP		0.0136	-0.0007	-0.40	0.0211	-0.0011	-0.53	OE
KNYA6Q		0.0140	-0.0003	-0.18	0.0215	-0.0007	-0.33	OE
NBTX2M		0.0161	0.0019	1.14	0.0242	0.0020	0.98	XX
P6VTCP		0.0160	0.0017	1.05	0.0240	0.0018	0.90	OE
TCQW3H		0.0143	0.0000	0.01	0.0213	-0.0009	-0.44	XX
TURWYN		0.0138	-0.0004	-0.26	0.0218	-0.0004	-0.20	OE
U2QT7R		0.0155	0.0012	0.73	0.0229	0.0007	0.36	OE
VJ8DKB		0.0153	0.0010	0.61	0.0228	0.0006	0.29	OE
VKA8WA		0.0173	0.0031	1.86	0.0267	0.0045	2.22	IC
WV372L		0.0157	0.0014	0.87	0.0247	0.0025	1.25	OE
YFMTTB		0.0140	-0.0003	-0.16	0.0220	-0.0002	-0.09	OE

Summary Statistics

	Sample A59		Sample A60	
Grand Means	0.0143	Percent	0.0222	Percent
Stnd Dev Btwn Labs	0.0017	Percent	0.0020	Percent

Samples A59, A60 : AA6060, AA6060

Statistics based on 23 of 26 reporting participants

Key to Method Codes Reported by Participants

IC Spectrometry - Inductively Coupled Plasma (ICP)
OE Spectrometry - Optical Emission (OES)
XX Please Indicate Method Used for Current Element

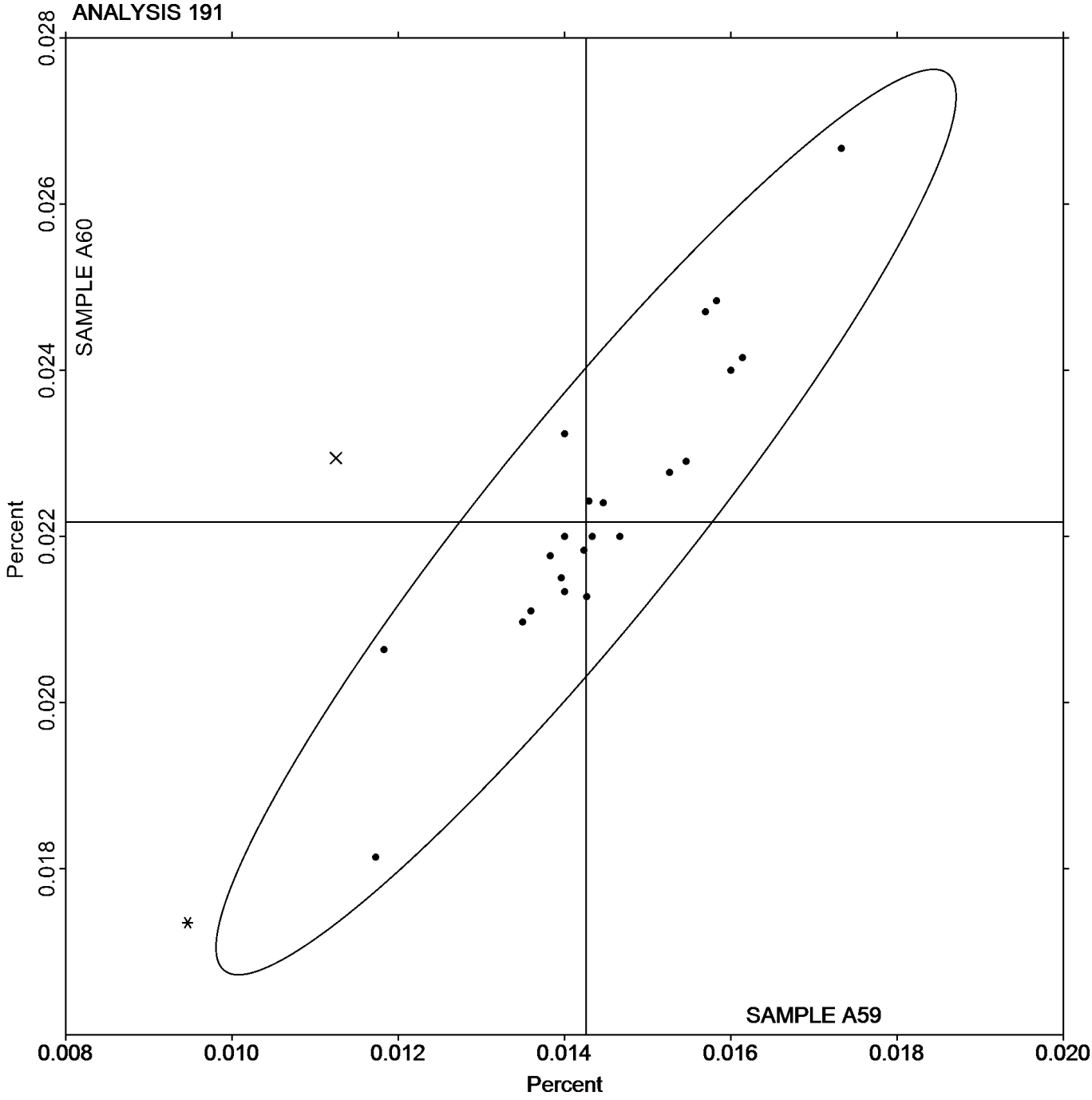
Comments on Assigned Data Flags for Test #191

EAVERA (X) - Data for sample A59 are high. Inconsistent within the determinations of sample A60.

F4FEQC (X) - Data for both samples are high.

SAMPLE A59
0.0143 Percent

SAMPLE A60
0.0222 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 192

Aluminum, Element #3
IRON (Fe)

Cycle 126
2nd Qtr 2019

		Sample A59			Sample A60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
27H8CN		0.2007	-0.0030	-0.43	0.3633	-0.0071	-0.57	IC
28T8ZG	*	0.2077	0.0040	0.57	0.3400	-0.0305	-2.42	OE
2PCZY8		0.2013	-0.0023	-0.34	0.3630	-0.0075	-0.59	OE
2PWJ7Y		0.1966	-0.0071	-1.02	0.3716	0.0012	0.09	OE
4K6HAQ	*	0.1843	-0.0193	-2.77	0.3320	-0.0385	-3.05	OE
87DUY2		0.2045	0.0008	0.12	0.3822	0.0117	0.93	IC
8NBARE		0.2108	0.0071	1.02	0.3784	0.0080	0.63	OE
BLEYEZ		0.2060	0.0023	0.33	0.3823	0.0119	0.94	WC
D7J4PF		0.2003	-0.0033	-0.48	0.3650	-0.0055	-0.44	OE
DHBPUB		0.2027	-0.0010	-0.14	0.3610	-0.0095	-0.75	OE
DXFAYT		0.2049	0.0012	0.17	0.3737	0.0032	0.25	OE
EAVERA		0.2000	-0.0037	-0.53	0.3667	-0.0038	-0.30	IC
F4FEQC	X	0.2400	0.0363	5.19	0.4367	0.0662	5.25	OE
GULMUU		0.2000	-0.0037	-0.53	0.3537	-0.0168	-1.33	OE
H3KBKY		0.2011	-0.0026	-0.37	0.3756	0.0051	0.41	OE
KBEPQP		0.2083	0.0047	0.67	0.3823	0.0119	0.94	XX
KNYA6Q		0.2013	-0.0023	-0.34	0.3743	0.0039	0.31	OE
NBTX2M		0.1968	-0.0069	-0.99	0.3546	-0.0159	-1.26	XX
P6VTCP		0.1967	-0.0070	-1.00	0.3600	-0.0105	-0.83	OE
TCQW3H		0.2097	0.0060	0.86	0.3714	0.0009	0.07	XX
TURWYN		0.2037	0.0000	0.00	0.3717	0.0012	0.09	OE
U2QT7R		0.2070	0.0033	0.48	0.3797	0.0092	0.73	XX
VJ8DKB		0.2160	0.0123	1.76	0.3910	0.0205	1.63	XX
VKA8WA		0.2077	0.0040	0.57	0.3773	0.0069	0.54	IC
WV372L		0.2179	0.0142	2.03	0.3807	0.0102	0.81	OE
YFMTTB		0.2100	0.0063	0.90	0.3800	0.0095	0.76	OE

Summary Statistics

	Sample A59		Sample A60	
Grand Means	0.2037	Percent	0.3705	Percent
Stnd Dev Btwn Labs	0.0070	Percent	0.0126	Percent

Samples A59, A60 : AA6060, AA6060

Statistics based on 24 of 26 reporting participants

Key to Method Codes Reported by Participants

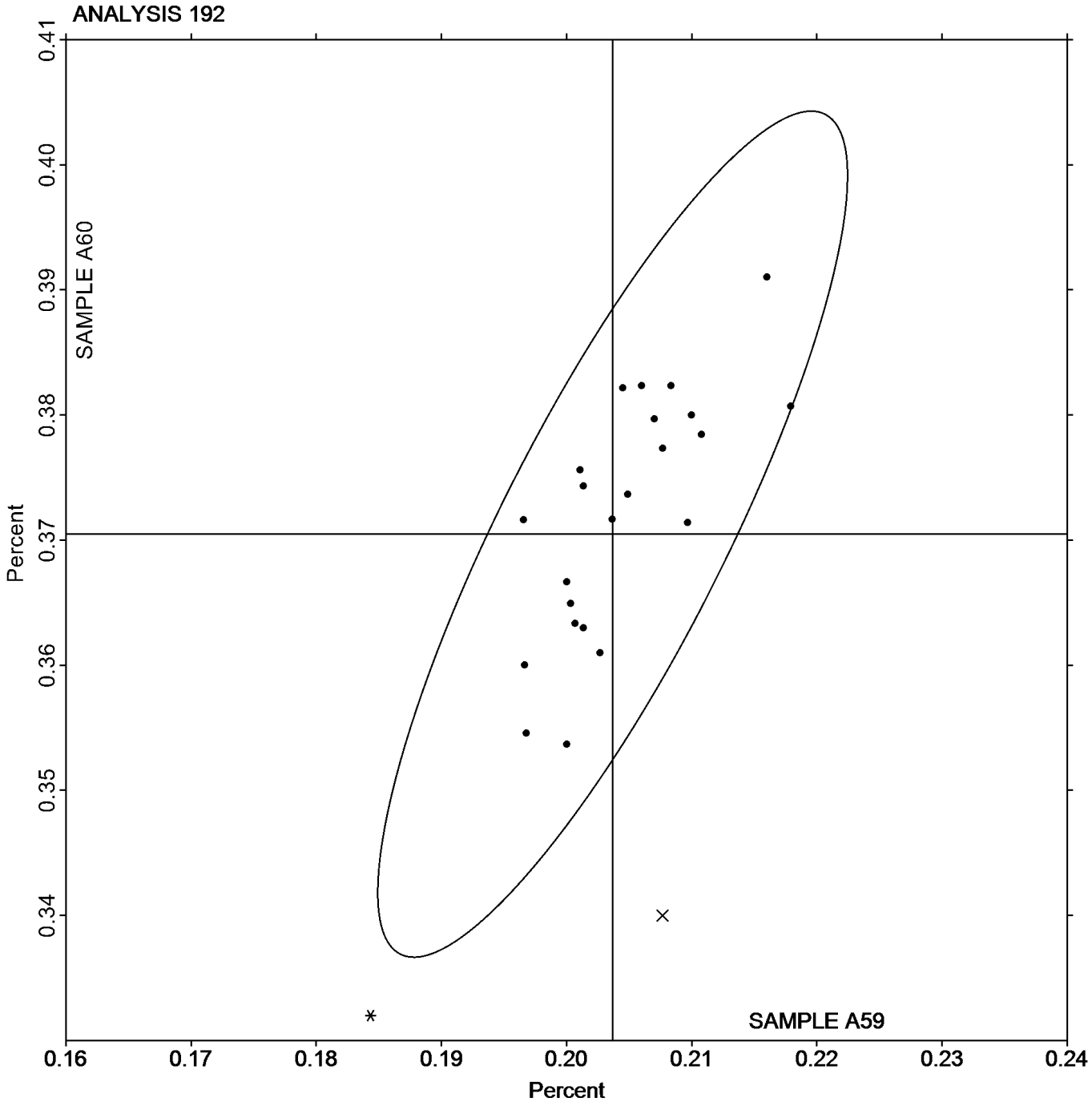
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WC	Wet Chemistry	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #192

F4FEQC (X) - Data for both samples are high.

SAMPLE A59
0.2037 Percent

SAMPLE A60
0.3705 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 193

Aluminum, Element #4
SILICON (Si)

Cycle 126
2nd Qtr 2019

		Sample A59			Sample A60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
27H8CN		0.4120	-0.0071	-0.23	0.4943	-0.0076	-0.24	IC
28T8ZG		0.3580	-0.0611	-2.02	0.4447	-0.0573	-1.81	OE
2PCZY8		0.3910	-0.0281	-0.93	0.4743	-0.0276	-0.87	OE
2PWJ7Y		0.4268	0.0078	0.26	0.5179	0.0160	0.50	OE
4K6HAQ	*	0.5007	0.0816	2.69	0.5963	0.0944	2.98	OE
87DUY2		0.4135	-0.0056	-0.18	0.4995	-0.0025	-0.08	IC
8NBARE		0.4088	-0.0103	-0.34	0.4858	-0.0161	-0.51	OE
BLEYEZ		0.4020	-0.0171	-0.56	0.4947	-0.0073	-0.23	WC
D7J4PF		0.4143	-0.0048	-0.16	0.5008	-0.0011	-0.04	OE
DHBPUB		0.4620	0.0429	1.42	0.5427	0.0407	1.29	OE
DXFAYT		0.4970	0.0779	2.57	0.5793	0.0774	2.44	OE
EAVERA	X	0.3733	-0.0457	-1.51	0.5100	0.0080	0.25	IC
F4FEQC		0.4133	-0.0057	-0.19	0.4933	-0.0086	-0.27	OE
GULMUU		0.4220	0.0029	0.10	0.5100	0.0080	0.25	OE
H3KBKY		0.4116	-0.0075	-0.25	0.4997	-0.0023	-0.07	OE
KBEPQP		0.4110	-0.0081	-0.27	0.4883	-0.0136	-0.43	OE
KNYA6Q		0.4013	-0.0177	-0.59	0.4750	-0.0270	-0.85	OE
NBTX2M		0.4065	-0.0125	-0.41	0.4944	-0.0076	-0.24	XX
P6VTCP		0.4167	-0.0024	-0.08	0.5000	-0.0020	-0.06	OE
PKCQRA		0.4467	0.0276	0.91	0.5200	0.0180	0.57	GR
TCQW3H		0.4087	-0.0104	-0.34	0.4914	-0.0105	-0.33	XX
TURWYN		0.3987	-0.0204	-0.67	0.4783	-0.0236	-0.75	OE
U2QT7R		0.4140	-0.0051	-0.17	0.4920	-0.0100	-0.31	OE
VJ8DKB		0.4243	0.0053	0.17	0.5060	0.0040	0.13	OE
VKA8WA	X	0.2820	-0.1371	-4.53	0.4800	-0.0220	-0.69	IC
WV372L		0.4155	-0.0035	-0.12	0.4902	-0.0118	-0.37	OE
YFMTTB		0.4000	-0.0191	-0.63	0.4800	-0.0220	-0.69	OE

Summary Statistics

	Sample A59		Sample A60	
Grand Means	0.4191	Percent	0.5020	Percent
Stnd Dev Btwn Labs	0.0303	Percent	0.0317	Percent

Samples A59, A60 : AA6060, AA6060

Statistics based on 25 of 27 reporting participants

Key to Method Codes Reported by Participants

GR	Gravimetry	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	WC	Wet Chemistry
XX	Please Indicate Method Used for Current Element		

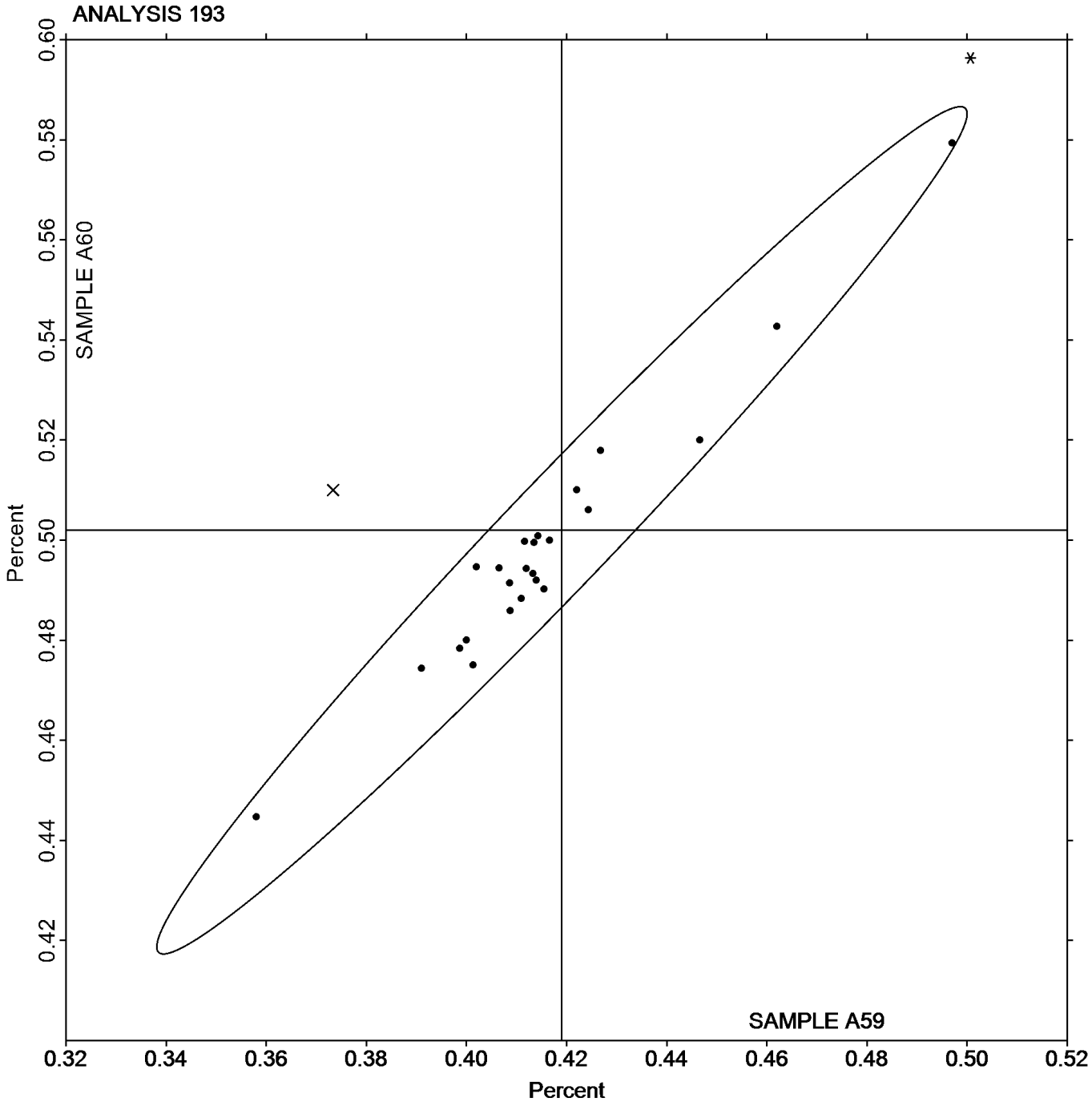
Comments on Assigned Data Flags for Test #193

EAVERA (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample A59.

VKA8WA (X) - Data for sample A59 are low. Inconsistent within the determinations of sample A60.

SAMPLE A59
0.4191 Percent

SAMPLE A60
0.5020 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 194

Aluminum, Element #5
MANGANESE (Mn)

Cycle 126
2nd Qtr 2019

		Sample A59			Sample A60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
27H8CN		0.0120	0.0010	0.91	0.0533	0.0012	0.39	IC
28T8ZG		0.00963	-0.0014	-1.28	0.0457	-0.0065	-2.13	OE
2PCZY8		0.0110	0.0000	-0.04	0.0508	-0.0014	-0.45	OE
2PWJ7Y		0.00973	-0.0013	-1.19	0.0490	-0.0031	-1.02	OE
4K6HAQ		0.0113	0.0003	0.26	0.0523	0.0002	0.06	OE
87DUY2		0.0107	-0.0004	-0.34	0.0519	-0.0002	-0.06	IC
8NBARE		0.00970	-0.0013	-1.22	0.0538	0.0016	0.54	OE
BLEYEZ		0.0107	-0.0003	-0.26	0.0520	-0.0001	-0.05	IC
D7J4PF		0.0113	0.0002	0.22	0.0489	-0.0032	-1.05	OE
DHBPUB		0.00880	-0.0022	-2.05	0.0507	-0.0015	-0.48	OE
DXFAYT		0.0106	-0.0004	-0.35	0.0502	-0.0020	-0.65	OE
EAVERA		0.0100	-0.0010	-0.94	0.0500	-0.0021	-0.70	IC
F4FEQC	*	0.0143	0.0033	3.08	0.0573	0.0052	1.71	OE
GULMUU		0.0110	0.0000	-0.01	0.0530	0.0009	0.28	OE
H3KBKY		0.0117	0.0006	0.59	0.0536	0.0015	0.49	OE
KBEPQP		0.0110	0.0000	-0.01	0.0527	0.0005	0.17	XX
KNYA6Q		0.0118	0.0008	0.73	0.0538	0.0017	0.55	OE
NBTX2M		0.0107	-0.0004	-0.33	0.0498	-0.0023	-0.76	XX
P6VTCP		0.0110	0.0000	-0.01	0.0530	0.0009	0.28	OE
TCQW3H		0.0112	0.0002	0.21	0.0517	-0.0005	-0.15	XX
TURWYN		0.0109	-0.0001	-0.08	0.0543	0.0022	0.72	OE
U2QT7R		0.0103	-0.0007	-0.66	0.0491	-0.0030	-0.99	OE
VJ8DKB		0.0118	0.0008	0.73	0.0511	-0.0011	-0.35	OE
VKA8WA	*	0.0127	0.0017	1.53	0.0620	0.0099	3.24	IC
WV372L		0.0116	0.0006	0.54	0.0521	0.0000	0.00	OE
YFMTTB		0.0110	0.0000	-0.01	0.0533	0.0012	0.39	OE

Summary Statistics

	Sample A59		Sample A60	
Grand Means	0.0110	Percent	0.0521	Percent
Stnd Dev Btwn Labs	0.0011	Percent	0.0030	Percent

Samples A59, A60 : AA6060, AA6060

Statistics based on 26 of 26 reporting participants

Key to Method Codes Reported by Participants

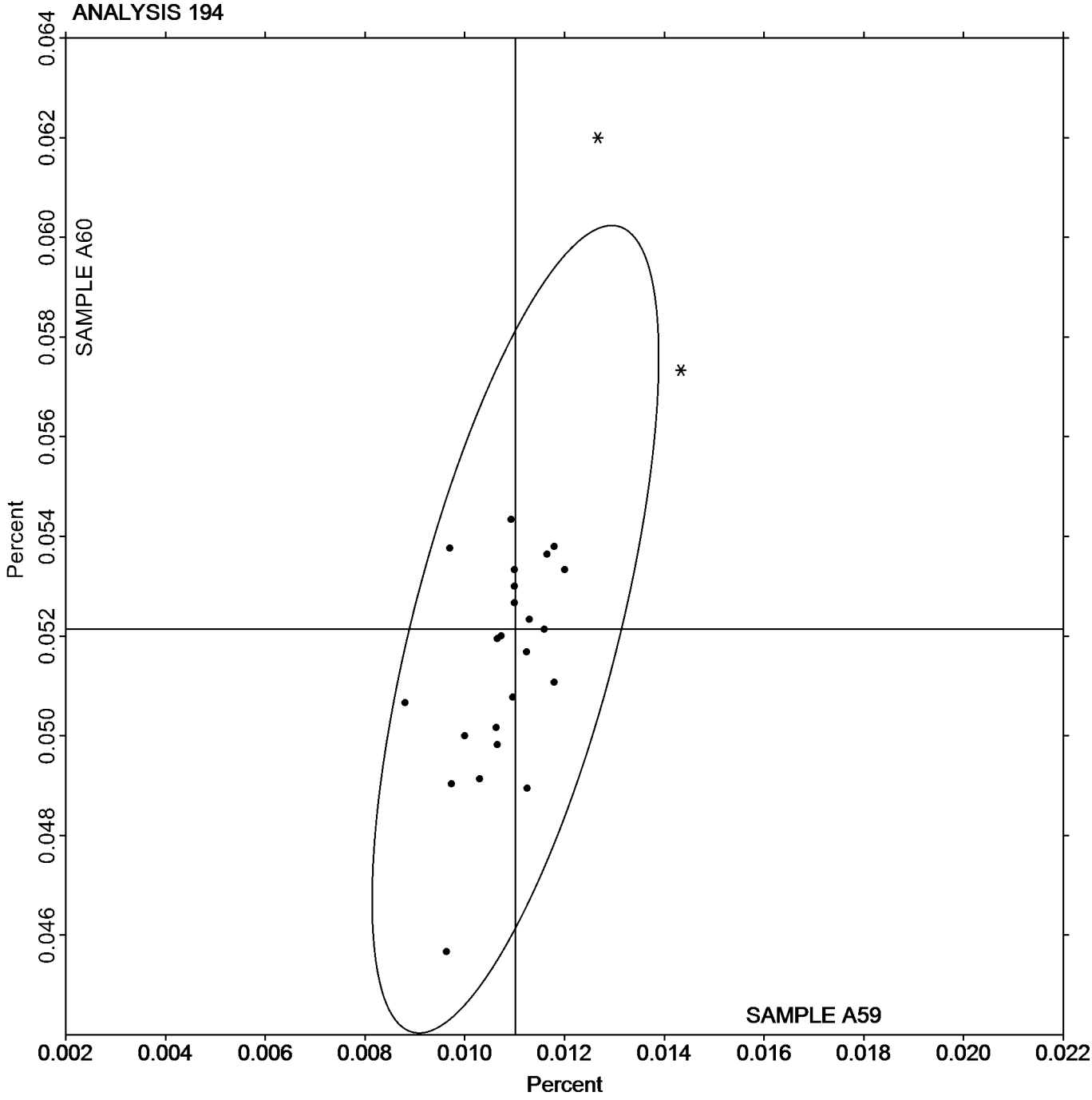
IC Spectrometry - Inductively Coupled Plasma (ICP)

OE Spectrometry - Optical Emission (OES)

XX Please Indicate Method Used for Current Element

SAMPLE A59
0.0110 Percent

SAMPLE A60
0.0521 Percent



		Sample A59			Sample A60			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
27H8CN		0.4863	-0.0071	-0.17	0.4803	-0.0096	-0.25	IC
28T8ZG		0.4497	-0.0437	-1.03	0.4483	-0.0416	-1.10	OE
2PCZY8		0.4567	-0.0367	-0.87	0.4707	-0.0192	-0.51	OE
2PWJ7Y		0.5180	0.0246	0.58	0.5032	0.0133	0.35	OE
4K6HAQ		0.5947	0.1013	2.40	0.5800	0.0901	2.37	OE
87DUY2		0.4996	0.0062	0.15	0.4965	0.0066	0.17	IC
8NBARE		0.4518	-0.0416	-0.99	0.4485	-0.0414	-1.09	OE
BLEYEZ		0.4827	-0.0107	-0.25	0.4797	-0.0102	-0.27	IC
D7J4PF		0.4314	-0.0620	-1.47	0.4548	-0.0351	-0.92	OE
DHBPUB	X	0.7467	0.2533	5.99	0.6940	0.2041	5.38	OE
DXFAYT		0.5003	0.0069	0.16	0.4913	0.0014	0.04	OE
EAVERA		0.4800	-0.0134	-0.32	0.4800	-0.0099	-0.26	IC
F4FEQC		0.5240	0.0306	0.72	0.5273	0.0374	0.99	OE
GULMUU	*	0.5200	0.0266	0.63	0.4700	-0.0199	-0.52	OE
H3KBKY		0.4813	-0.0121	-0.29	0.4840	-0.0059	-0.16	OE
KBEPQP		0.5813	0.0879	2.08	0.5703	0.0804	2.12	OE
KNYA6Q		0.4580	-0.0354	-0.84	0.4543	-0.0356	-0.94	OE
NBTX2M		0.4949	0.0015	0.04	0.4859	-0.0040	-0.10	XX
P6VTCP		0.5133	0.0199	0.47	0.5000	0.0101	0.27	OE
TCQW3H		0.4995	0.0061	0.14	0.4924	0.0025	0.06	XX
TURWYN		0.4757	-0.0177	-0.42	0.4693	-0.0206	-0.54	OE
U2QT7R		0.5187	0.0253	0.60	0.5050	0.0151	0.40	XX
VJ8DKB		0.4227	-0.0707	-1.67	0.4213	-0.0686	-1.81	OE
VKA8WA		0.5547	0.0613	1.45	0.5550	0.0651	1.72	IC
WV372L		0.5001	0.0067	0.16	0.4926	0.0027	0.07	OE
YFMTTB		0.4667	-0.0267	-0.63	0.4667	-0.0232	-0.61	OE

Summary Statistics

	Sample A59		Sample A60	
Grand Means	0.4934	Percent	0.4899	Percent
Stnd Dev Btwn Labs	0.0423	Percent	0.0379	Percent

Samples A59, A60 : AA6060, AA6060

Statistics based on 24 of 26 reporting participants

Key to Method Codes Reported by Participants

IC Spectrometry - Inductively Coupled Plasma (ICP)

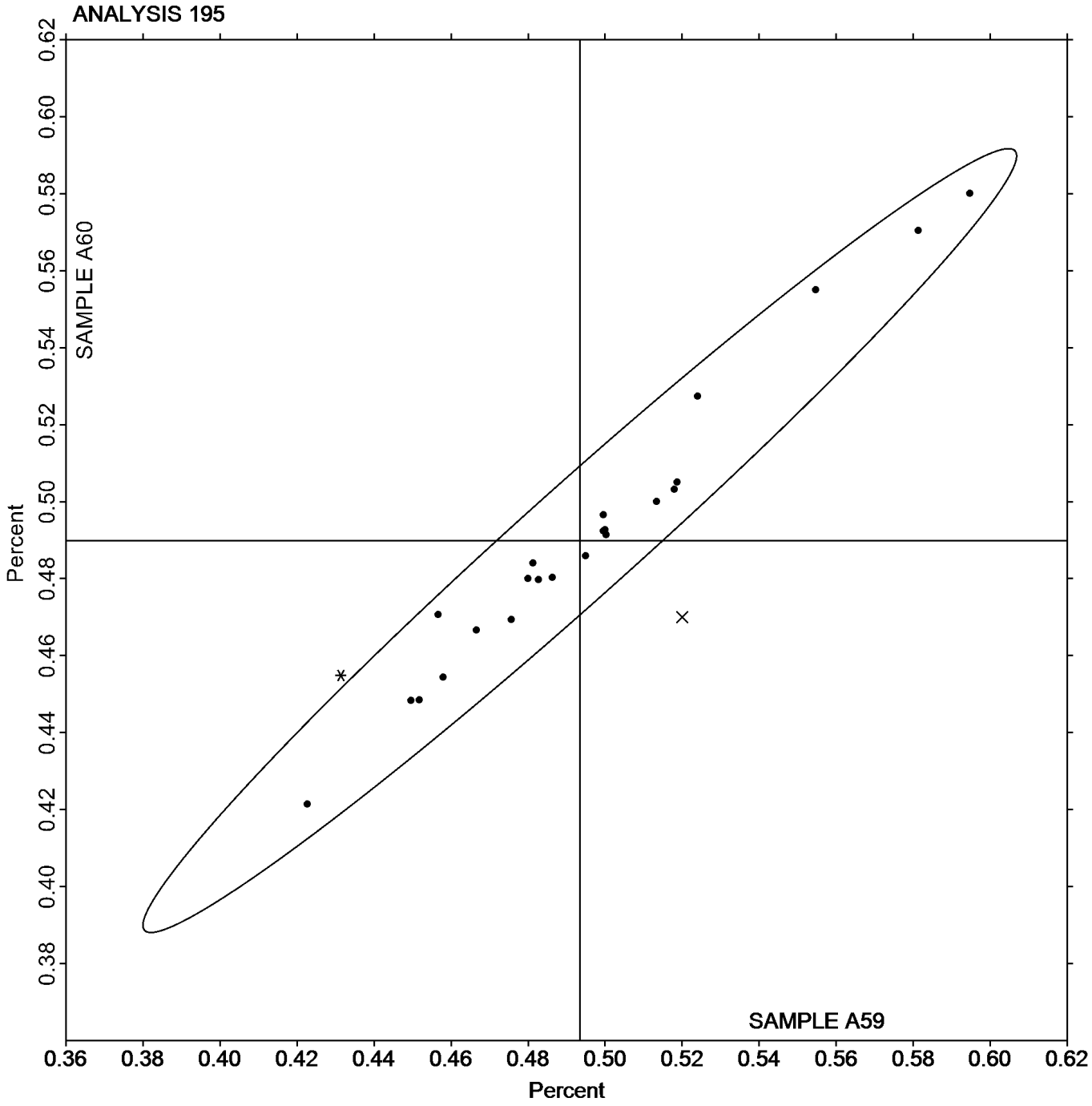
OE Spectrometry - Optical Emission (OES)

XX Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #195

DHBPUB (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

SAMPLE A59	SAMPLE A60
0.4934 Percent	0.4899 Percent



WebCode	Data Flag	Sample A59 Lab Mean	Sample A59 Diff. from Grand Mean	Sample A59 CPV	Sample A60 Lab Mean	Sample A60 Diff. from Grand Mean	Sample A60 CPV	Method
27H8CN		0.00500	-0.00049	-0.50	0.0143	-0.0011	-1.37	IC
28T8ZG		0.00520	-0.00029	-0.30	0.0152	-0.0002	-0.26	OE
2PCZY8		0.00570	0.00021	0.21	0.0163	0.0008	1.01	OE
2PWJ7Y		0.00533	-0.00016	-0.16	0.0161	0.0007	0.81	OE
4K6HAQ		0.00517	-0.00033	-0.33	0.0150	-0.0004	-0.55	OE
87DUY2		0.00557	0.00008	0.08	0.0155	0.0000	0.02	IC
8NBARE		0.00517	-0.00033	-0.33	0.0154	0.0000	-0.06	OE
BLEYEZ		0.00533	-0.00016	-0.16	0.0148	-0.0006	-0.75	IC
D7J4PF		0.00600	0.00051	0.52	0.0149	-0.0005	-0.63	OE
DHBPUB	M	No Data Reported			0.0147	-0.0008	-0.96	OE
DXFAYT		0.00730	0.00181	1.84	0.0162	0.0008	0.93	OE
EAVERA	*	0.00500	-0.00049	-0.50	0.0133	-0.0021	-2.60	IC
F4FEQC		0.00767	0.00217	2.22	0.0160	0.0006	0.68	OE
GULMUU		0.00553	0.00004	0.04	0.0150	-0.0004	-0.55	OE
H3KBKY		0.00599	0.00050	0.51	0.0164	0.0009	1.16	OE
KNYA6Q		0.00473	-0.00076	-0.77	0.0151	-0.0003	-0.42	OE
NBTX2M		0.00576	0.00027	0.27	0.0159	0.0004	0.54	XX
P6VTCP		0.00300	-0.00249	-2.54	0.0150	-0.0004	-0.55	OE
TCQW3H		0.00595	0.00045	0.46	0.0157	0.0003	0.33	XX
TURWYN		0.00573	0.00024	0.25	0.0161	0.0007	0.85	OE
U2QT7R		0.00543	-0.00006	-0.06	0.0156	0.0002	0.19	OE
VJ8DKB		0.00630	0.00081	0.82	0.0168	0.0013	1.63	XX
VKA8WA		0.00600	0.00051	0.52	0.0160	0.0006	0.68	IC
WV372L		0.00560	0.00011	0.11	0.0160	0.0006	0.68	OE
YFMTTB		0.00333	-0.00216	-2.20	0.0140	-0.0014	-1.78	OE

Summary Statistics

	Sample A59		Sample A60	
Grand Means	0.00549	Percent	0.0154	Percent
Stnd Dev Btwn Labs	0.00098	Percent	0.0008	Percent

Samples A59, A60 : AA6060, AA6060

Statistics based on 24 of 25 reporting participants

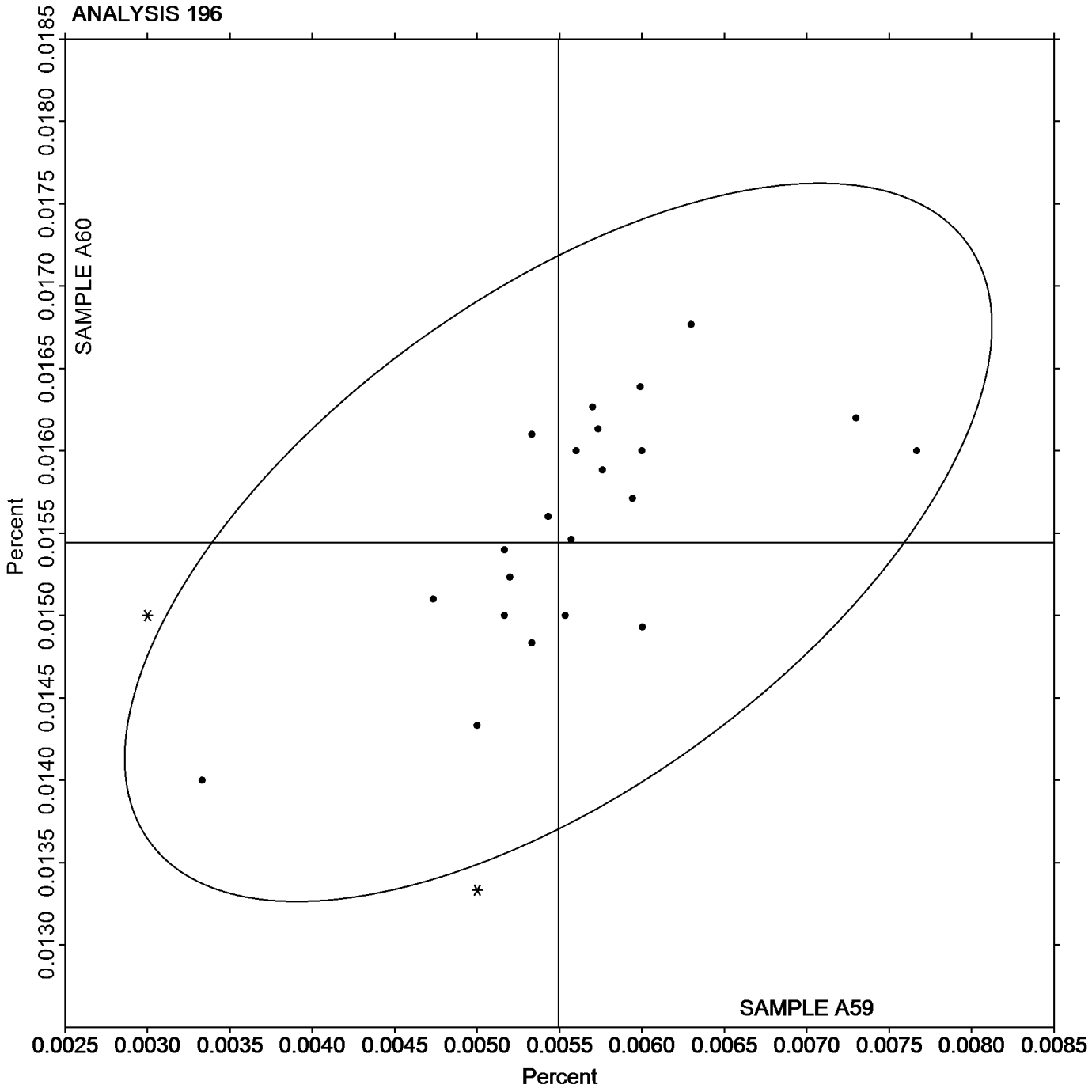
Key to Method Codes Reported by Participants

IC Spectrometry - Inductively Coupled Plasma (ICP)
OE Spectrometry - Optical Emission (OES)
XX Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #196

DHBPUB (M) - Participant did not submit data for sample A59.

SAMPLE A59	SAMPLE A60
0.00549 Percent	0.0154 Percent



WebCode	Data Flag	Sample A59 Lab Mean	Sample A59 Diff. from Grand Mean	Sample A59 CPV	Sample A60 Lab Mean	Sample A60 Diff. from Grand Mean	Sample A60 CPV	Method
27H8CN		0.0220	0.0005	0.31	0.0150	0.0003	0.22	IC
28T8ZG		0.0215	0.0000	-0.03	0.0142	-0.0005	-0.44	OE
2PCZY8		0.0212	-0.0003	-0.18	0.0134	-0.0013	-1.10	OE
2PWJ7Y		0.0208	-0.0007	-0.47	0.0153	0.0006	0.47	OE
4K6HAQ		0.0206	-0.0009	-0.60	0.0147	-0.0001	-0.05	OE
87DUY2		0.0220	0.0005	0.33	0.0149	0.0002	0.13	IC
8NBARE		0.0209	-0.0006	-0.37	0.0151	0.0004	0.30	OE
BLEYEZ		0.0218	0.0003	0.20	0.0144	-0.0003	-0.27	IC
D7J4PF		0.0222	0.0007	0.46	0.0151	0.0003	0.29	OE
DXFAYT		0.0233	0.0018	1.14	0.0160	0.0012	1.02	OE
EAVERA	X	0.0200	-0.0015	-0.96	0.0200	0.0053	4.34	IC
F4FEQC		0.0187	-0.0028	-1.81	0.0117	-0.0031	-2.53	OE
GULMUU	*	0.0267	0.0052	3.28	0.0170	0.0023	1.87	OE
H3KBKY		0.0205	-0.0010	-0.62	0.0149	0.0002	0.17	OE
KBEPQP		0.0207	-0.0008	-0.54	0.0150	0.0003	0.22	OE
KNYA6Q		0.0211	-0.0004	-0.24	0.0147	0.0000	-0.03	OE
NBTX2M		0.0231	0.0015	0.99	0.0147	0.0000	-0.02	XX
P6VTCP		0.0210	-0.0005	-0.33	0.0160	0.0013	1.04	OE
TCQW3H		0.0193	-0.0022	-1.39	0.0121	-0.0026	-2.17	XX
TURWYN		0.0225	0.0010	0.63	0.0150	0.0002	0.19	OE
U2QT7R		0.0215	0.0000	-0.01	0.0155	0.0007	0.60	XX
VJ8DKB		0.0196	-0.0019	-1.22	0.0136	-0.0011	-0.91	OE
VKA8WA		0.0207	-0.0008	-0.54	0.0147	-0.0001	-0.05	IC
WV372L		0.0223	0.0008	0.48	0.0167	0.0020	1.65	OE
YFMTTB		0.0223	0.0008	0.52	0.0140	-0.0007	-0.60	OE

Summary Statistics

	Sample A59		Sample A60	
Grand Means	0.0215	Percent	0.0147	Percent
Stnd Dev Btwn Labs	0.0016	Percent	0.0012	Percent

Samples A59, A60 : AA6060, AA6060

Statistics based on 24 of 25 reporting participants

Key to Method Codes Reported by Participants

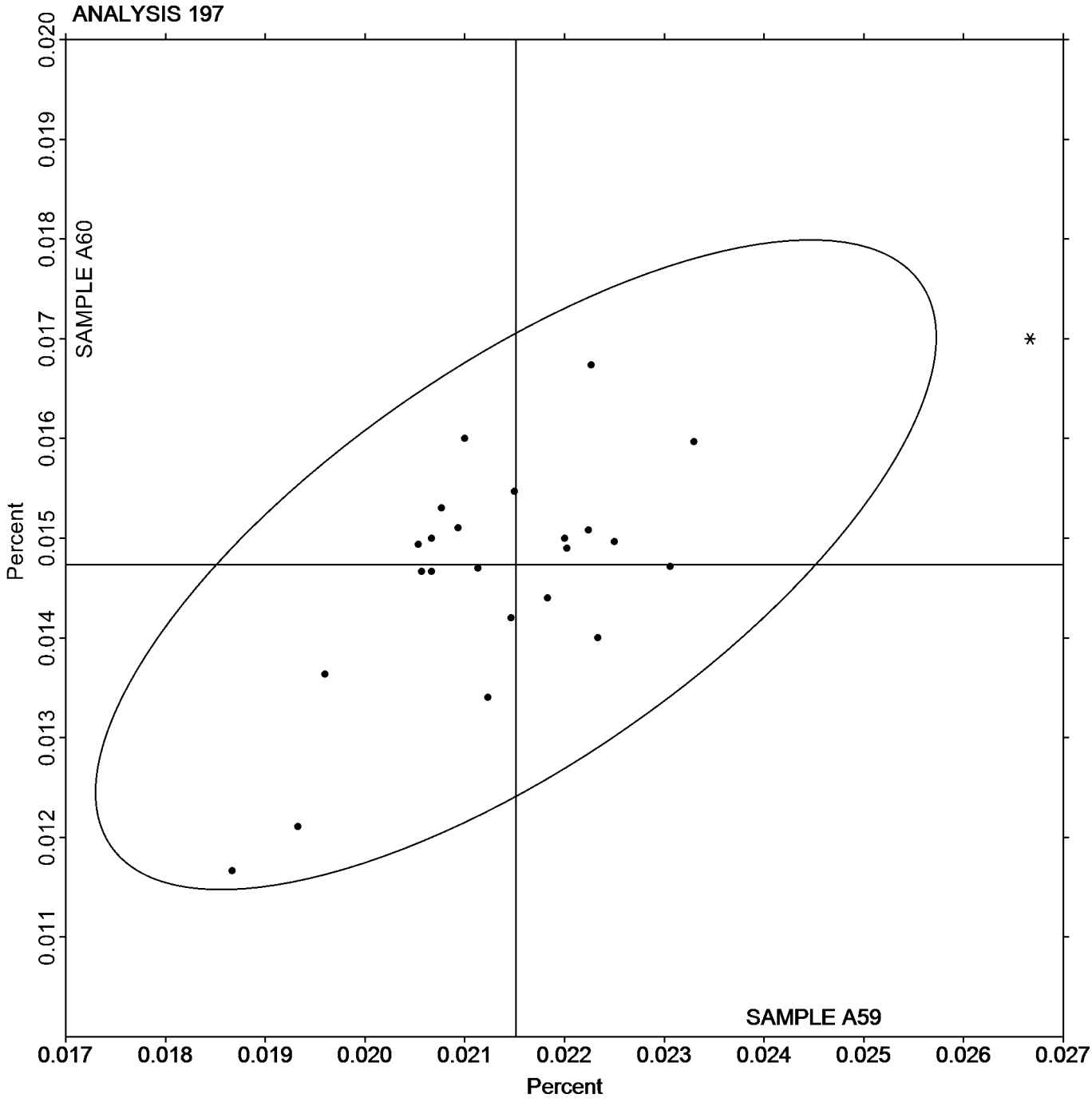
IC Spectrometry - Inductively Coupled Plasma (ICP)
OE Spectrometry - Optical Emission (OES)
XX Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #197

EAVERA (X) - Data for sample A60 are high.

SAMPLE A59
0.0215 Percent

SAMPLE A60
0.0147 Percent



-End of Report-

