Collaborative Testing Services, Inc.

Fasteners & Metals Interlaboratory Testing Program

Summary Report Cycle 138, 2nd Qtr 2022

About the Metals Program About CTS Key to Tables and Graphs

Analysis	Test Group
	Impact Tests
1003	Charpy V-Notch (-30 degrees)
	Tensile Tests
1131	Tensile Strength: Lab-Machined Flat Steel
1132	Yield Strength: Lab-Machined Flat Steel
1133	Elongation: Lab-Machined Flat Steel
1134	r-Value: Lab-Machined Flat Steel
1135	n-Value: Lab-Machined Flat Steel
	Fasteners
1201	Fastener Wedge Tensile (10 degree)
1202	Fastener Axial Tensile
1203	Fastener Wedge Tensile (10 degree) - Metric
1204	Fastener Axial Tensile - Metric
1210	Rockwell Hardness: Externally Threaded Fasteners
1211	Vickers Hardness: Externally Threaded Fasteners
1220	Fastener Double Shear
	Hardness / Metallography Tests
1301	Rockwell Hardness: C & B Scales
1303	Rockwell Hardness: C Scale
1351	Rockwell Superficial Hardness (30N Scale)
1401	Total Case Depth
1402	Effective Case Depth
1411	Grain Size (Stainless Steel)
1421	Alpha Case Depth
1422	Alloy Depletion: Inconel
	Chemical Analyses
1500 - 1509	Chemical Analysis: Nickel-based Alloy
1540 - 1547	Chemical Analysis: Aluminum Alloy
1640 - 1651	Chemical Analysis: Corrosion Resistant Steel

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 U83			Sample U84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
3HXD69		20.50	-1.97	-0.98	19.32	-3.46	-1.26
3UXGHX		22.25	-0.22	-0.11	21.20	-1.58	-0.58
4QBRM4		22.00	-0.47	-0.24	22.67	-0.11	-0.04
4VKJMN		27.37	4.89	2.43	27.23	4.45	1.62
84ARUP		20.53	-1.94	-0.96	24.27	1.49	0.54
8L8JMX		19.60	-2.87	-1.43	21.50	-1.28	-0.47
99ZUMB		22.60	0.13	0.06	23.07	0.29	0.10
BYKWPH		22.47	-0.01	0.00	21.88	-0.90	-0.33
CL7BT2		22.33	-0.14	-0.07	21.33	-1.45	-0.53
F34KBP		22.43	-0.04	-0.02	21.73	-1.05	-0.38
FR3P3Y		20.79	-1.69	-0.84	21.23	-1.55	-0.56
GFML7M	X	36.33	13.86	6.89	36.33	13.55	4.95
HQ4QTC		23.57	1.09	0.54	23.30	0.52	0.19
LMEFFG		23.12	0.64	0.32	23.45	0.67	0.24
P63ZH6		23.43	0.96	0.48	24.17	1.39	0.51
PLJDP2		21.33	-1.14	-0.57	19.67	-3.11	-1.14
RY34V3		24.72	2.24	1.12	25.24	2.46	0.90
VT6K72		20.33	-2.14	-1.06	21.23	-1.55	-0.56
XVNTF9		20.00	-2.47	-1.23	20.67	-2.11	-0.77
XXV9PY		24.35	1.87	0.93	21.28	-1.50	-0.55
Y26NRW	*	25.75	3.28	1.63	31.18	8.40	3.06

Summary Statistics

	Sample U83		Sample U84	
Grand Means	22.47	Joules	22.78	Joules
Stnd Dev Btwn Labs	2.01	Joules	2.74	Joules

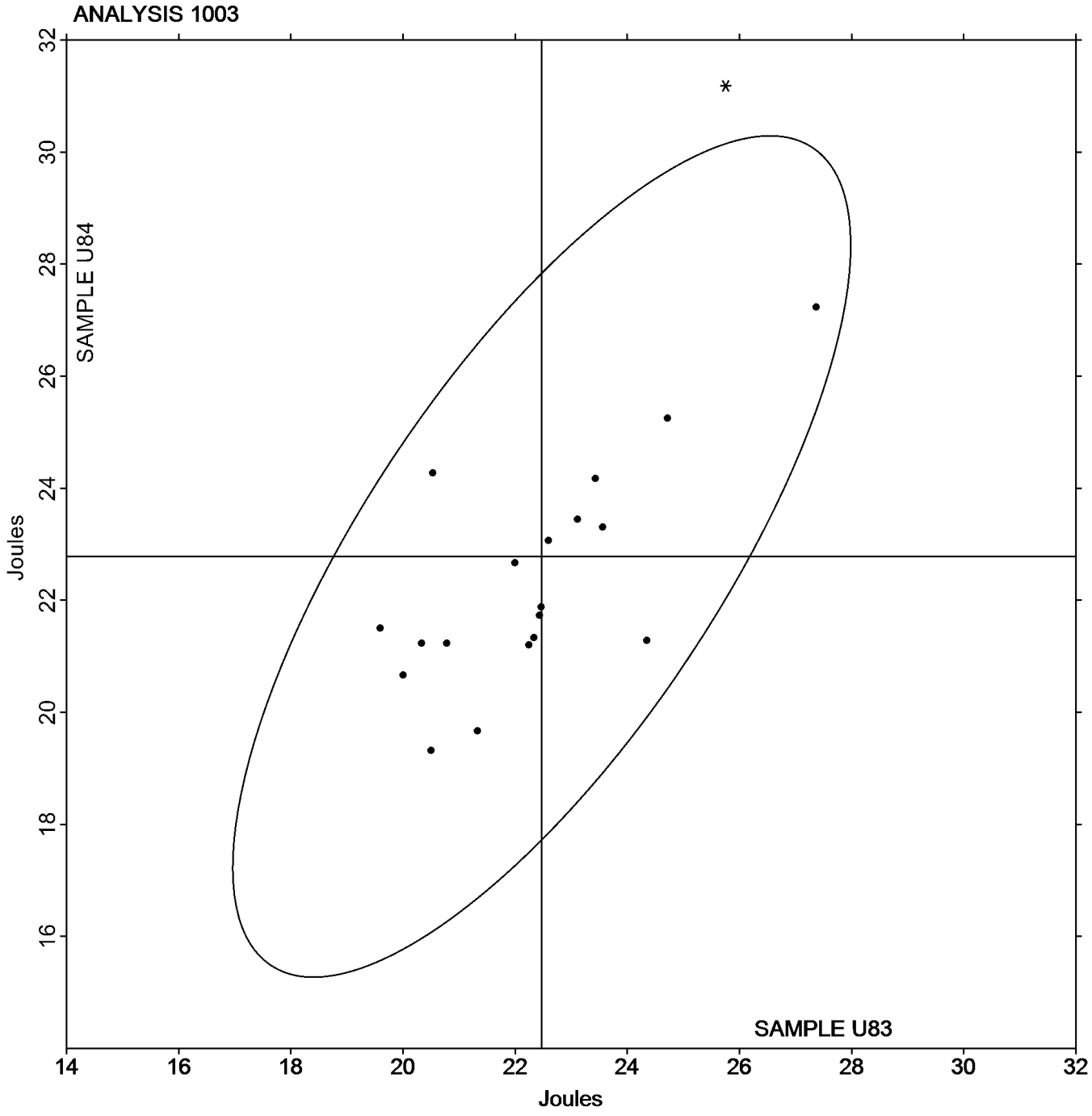
Samples U83, U84 : AISI 4340, AISI 4340

Statistics based on 20 of 21 reporting participants

Comments on Assigned Data Flags for Test #1003

GFML7M (X) - Data for both samples are high.

SAMPLE U83	SAMPLE U84
22.47 Joules	22.78 Joules



		Sample F83			Sample F84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
28AUDX		45.00	-0.67	-0.94	44.80	-1.12	-1.43
28NXR6		46.20	0.53	0.75	47.30	1.38	1.75
29H68F		44.44	-1.23	-1.72	44.25	-1.67	-2.12
2GEEMZ		45.51	-0.15	-0.22	46.11	0.19	0.23
2GQBR6	*	44.10	-1.57	-2.20	44.90	-1.02	-1.30
2HNCZH		45.50	-0.17	-0.24	45.60	-0.32	-0.41
2HRC76		45.52	-0.14	-0.20	46.40	0.48	0.61
2WL2YF		45.96	0.29	0.41	46.28	0.36	0.46
34KEA3	*	47.72	2.05	2.88	47.96	2.04	2.59
3AVQLN		47.11	1.44	2.03	47.64	1.71	2.17
3CDNXZ		45.50	-0.17	-0.24	46.30	0.38	0.48
3D828Q		46.50	0.83	1.17	47.20	1.28	1.62
3DTC9K		46.57	0.91	1.27	47.03	1.11	1.41
3JTBLA		45.70	0.03	0.04	46.00	0.08	0.10
3P4HBU		45.11	-0.56	-0.79	45.69	-0.24	-0.30
3WKZLF	X	44.18	-1.49	-2.09	43.04	-2.89	-3.66
47MV2Q		44.30	-1.36	-1.92	45.09	-0.83	-1.06
4HGJ4Y		45.83	0.16	0.23	45.98	0.05	0.07
4P3ATE		45.30	-0.37	-0.52	45.10	-0.82	-1.04
4VKJMN		45.97	0.30	0.42	45.73	-0.19	-0.24
672CY6		46.30	0.63	0.89	46.60	0.68	0.86
68VZGZ		45.99	0.32	0.45	46.11	0.19	0.23
6AKKX6		45.39	-0.28	-0.39	46.25	0.33	0.42
6YLPY9		46.30	0.63	0.89	46.40	0.48	0.61
7TQF42		47.19	1.52	2.14	47.34	1.42	1.80
84ARUP		44.60	-1.07	-1.51	44.35	-1.57	-2.00
87TCNF		45.60	-0.07	-0.10	45.50	-0.42	-0.54
8C48VA		46.90	1.23	1.73	47.10	1.18	1.49
8DBPPY		45.20	-0.47	-0.66	45.10	-0.82	-1.04
8HPUAT		45.90	0.23	0.33	45.80	-0.12	-0.16
99ZUMB		45.98	0.31	0.43	46.56	0.63	0.81
9LG3U9		46.12	0.45	0.64	46.41	0.49	0.62
9PG7Q2		46.00	0.33	0.47	45.50	-0.42	-0.54
ACC2J9		44.43	-1.24	-1.74	44.57	-1.35	-1.72
APWQCJ		44.48	-1.19	-1.67	44.36	-1.56	-1.98
AQ9FGG	X	37.06	-8.61	-12.08	45.24	-0.69	-0.87
AWFGR6		45.80	0.13	0.19	46.30	0.38	0.48
BEWCVJ	X	42.25	-3.42	-4.80	45.99	0.07	0.09
BG69A2		46.90	1.23	1.73	46.90	0.98	1.24
BXM93H		45.96	0.29	0.41	45.82	-0.11	-0.13
BZAA8Z		45.30	-0.37	-0.52	45.20	-0.72	-0.92
CLNJGW		45.60	-0.07	-0.10	46.20	0.28	0.35
DKYNXF		46.24	0.57	0.80	45.85	-0.07	-0.09
E2GLGZ		45.90	0.23	0.33	46.10	0.18	0.22
E4MYAZ		45.40	-0.27	-0.38	45.90	-0.02	-0.03
E79XCW		46.60	0.93	1.31	46.70	0.78	0.99
ECGAGB		46.00	0.33	0.47	46.10	0.18	0.22

		Sample F83			Sample F84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
EMGULN		45.51	-0.16	-0.22	45.37	-0.55	-0.70
ERAYER	X	46.80	1.13	1.59	45.90	-0.02	-0.03
ETK8TY		45.80	0.13	0.19	46.00	0.08	0.10
F4WHHW		45.70	0.03	0.04	45.60	-0.32	-0.41
FTD4FU	X	51.77	6.10	8.56	46.93	1.00	1.28
GANV76		44.21	-1.46	-2.05	44.49	-1.43	-1.82
GFPATR	X	53.60	7.93	11.13	51.10	5.18	6.57
GLUFF3	*	44.06	-1.61	-2.26	43.84	-2.08	-2.64
GTUGJW		46.10	0.43	0.61	46.60	0.68	0.86
H3HLCH		45.20	-0.47	-0.66	45.40	-0.52	-0.66
HAZLGE	*	44.80	-0.87	-1.22	44.10	-1.82	-2.31
J8L7DK		45.50	-0.17	-0.24	45.37	-0.55	-0.70
JVAQKT		45.70	0.03	0.04	46.40	0.48	0.61
KATLMB		45.50	-0.17	-0.24	45.40	-0.52	-0.66
KDVMNU		46.10	0.43	0.61	46.30	0.38	0.48
LMEFFG		45.38	-0.29	-0.40	45.53	-0.39	-0.50
LPFWTQ		46.04	0.37	0.52	46.15	0.23	0.29
LPWPEF		44.70	-0.97	-1.36	45.10	-0.82	-1.04
LTVNJJ		44.20	-1.47	-2.06	44.10	-1.82	-2.31
LV3DXA	X	46.60	0.93	1.31	48.40	2.48	3.14
M3K4XA	*	45.32	-0.35	-0.49	46.58	0.66	0.83
MGJ7HM		45.79	0.12	0.17	45.75	-0.17	-0.22
MYH7N3		45.30	-0.37	-0.52	46.20	0.28	0.35
N6Z3LN		44.80	-0.87	-1.22	44.90	-1.02	-1.30
NBNK3K		46.79	1.12	1.57	46.31	0.39	0.49
NPVWQD	X	45.10	-0.57	-0.80	43.20	-2.72	-3.46
NTRAZ4	X	44.90	-0.77	-1.08	46.50	0.58	0.73
P8MYRT		45.15	-0.52	-0.72	45.56	-0.36	-0.46
Q4Z3U8		45.56	-0.11	-0.15	45.44	-0.48	-0.61
Q776KR		45.10	-0.57	-0.80	45.50	-0.42	-0.54
Q7BHCU		46.00	0.33	0.47	46.50	0.58	0.73
QJC9WD		46.41	0.74	1.04	46.85	0.92	1.17
QMYUMF		45.59	-0.08	-0.12	46.24	0.32	0.40
QVLVYJ	X	43.36	-2.31	-3.24	43.01	-2.91	-3.69
R9PKAQ		45.69	0.02	0.03	45.98	0.05	0.07
RM9M72		45.80	0.13	0.19	46.00	0.08	0.10
RPGAW9		45.80	0.13	0.19	46.00	0.08	0.10
RPXMV6		45.95	0.28	0.39	46.04	0.11	0.14
RTW2JU		46.30	0.63	0.89	46.50	0.58	0.73
T6MND9		45.98	0.31	0.43	46.12	0.20	0.25
TCMJ4F		45.83	0.16	0.23	46.97	1.05	1.33
TJ9E6J		46.80	1.13	1.59	46.50	0.58	0.73
TNYPG3		46.19	0.53	0.74	46.70	0.78	0.99
TUATDW		45.70	0.03	0.04	46.10	0.18	0.22
UTRUF7		46.70	1.03	1.45	46.41	0.49	0.62
V3DCCP		44.90	-0.77	-1.08	45.10	-0.82	-1.04
VT6K72		45.83	0.16	0.23	46.12	0.20	0.25

		Sample F83			Sample F84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
VT7WVC		45.84	0.17	0.24	46.22	0.30	0.38
VTLC68		44.80	-0.87	-1.22	45.70	-0.22	-0.28
W39UVK		45.70	0.03	0.04	46.40	0.48	0.61
WL6B7A		45.30	-0.37	-0.52	45.70	-0.22	-0.28
WPL7XL		46.29	0.63	0.88	46.74	0.82	1.04
WYQZBY		46.10	0.43	0.61	46.10	0.18	0.22
X4GW9N		45.70	0.03	0.04	46.20	0.28	0.35
XGLFYB		44.40	-1.27	-1.78	44.90	-1.02	-1.30
XHCPNJ		44.90	-0.77	-1.08	45.43	-0.50	-0.63
XXV9PY		45.82	0.15	0.21	46.09	0.17	0.22
Y26NRW		45.90	0.23	0.33	46.30	0.38	0.48
Y4VYJP	X	45.54	-0.13	-0.18	43.80	-2.12	-2.69
YGHAZT		45.98	0.31	0.43	46.56	0.63	0.81
YZXWT9		44.96	-0.71	-0.99	45.88	-0.05	-0.06
ZCLREL		46.00	0.33	0.47	46.30	0.38	0.48
ZDWRFM		44.82	-0.85	-1.19	45.11	-0.82	-1.04
ZNFURT		45.80	0.13	0.19	45.80	-0.12	-0.16
ZV2M4T		46.75	1.08	1.51	47.00	1.07	1.36
ZZC7CG		45.38	-0.29	-0.40	45.21	-0.71	-0.91

Summary Statistics

	Sample F83		Sample F84	
Grand Means	45.67	ksi	45.92	ksi
Stnd Dev Btwn Labs	0.71	ksi	0.79	ksi

Samples F83, F84 : AISI 1008 - 14G, AISI 1008 - 16G

Statistics based on 102 of 113 reporting participants

Comments on Assigned Data Flags for Test #1131

3WKZLF (X) - Data for sample F84 are low.

AQ9FGG (X) - Data for sample F83 are low.

BEWCVJ (X) - Data for sample F83 are low.

ERAYER (X) - Inconsistent in testing between samples.

FTD4FU (X) - Data for sample F83 are high.

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

LV3DXA (X) - Data for sample F84 are high.

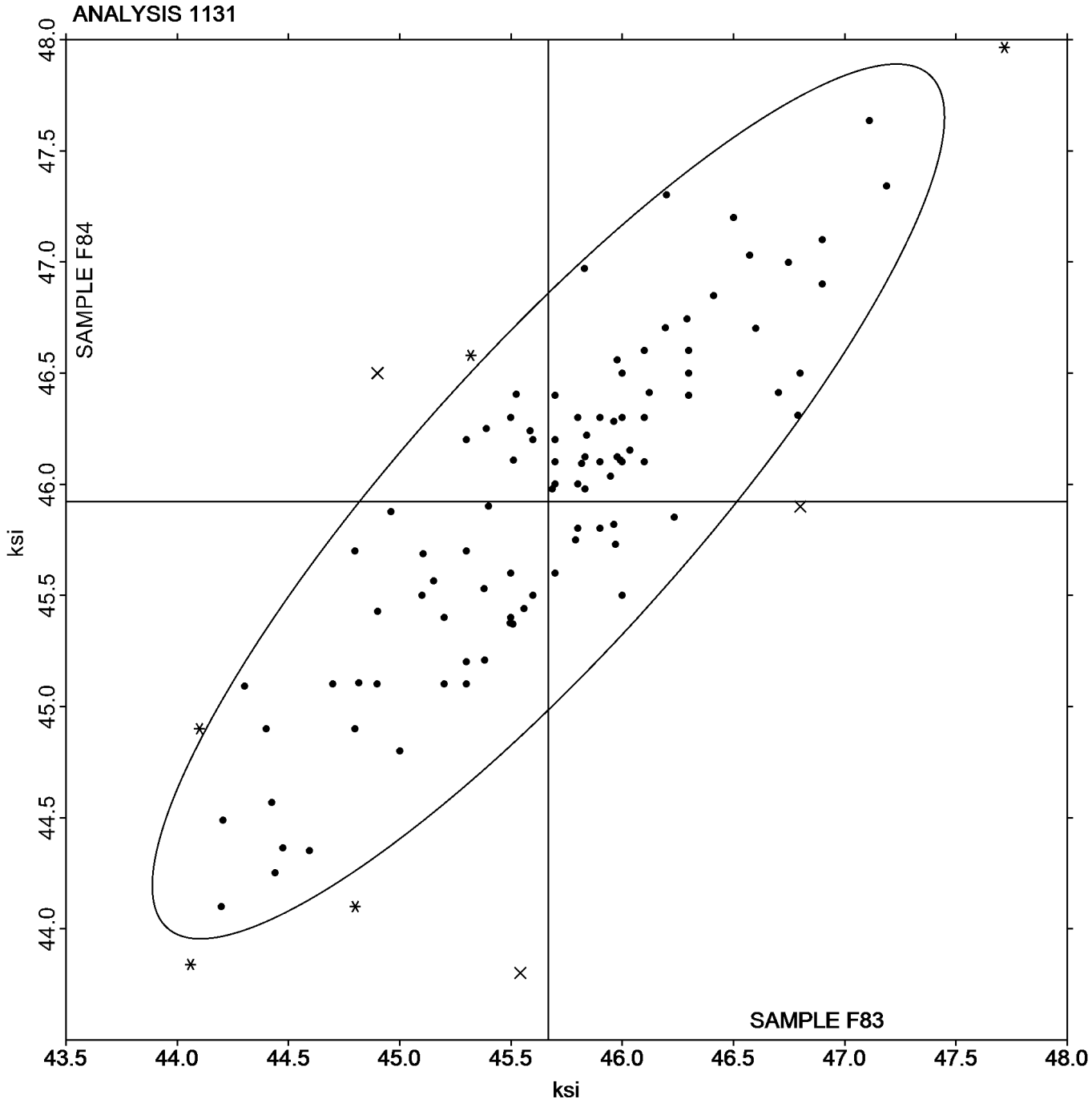
NPVWQD (X) - Data for sample F84 are low.

NTRAZ4 (X) - Inconsistent in testing between samples.

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

Y4VYJP (X) - Inconsistent in testing between samples.

SAMPLE F83	SAMPLE F84
45.67 ksi	45.92 ksi



		Sample F83			Sample F84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
28AUDX	*	25.50	-0.20	-0.22	27.50	1.25	1.33
28NXR6		26.10	0.40	0.44	27.80	1.55	1.65
29H68F		25.22	-0.48	-0.53	25.93	-0.32	-0.34
2GEEMZ		25.00	-0.70	-0.77	26.37	0.12	0.13
2GQBR6		24.30	-1.40	-1.54	25.90	-0.35	-0.37
2HNCZH		25.00	-0.70	-0.77	25.80	-0.45	-0.48
2HRC76		26.45	0.74	0.82	26.34	0.08	0.09
2WL2YF		26.25	0.55	0.61	26.83	0.58	0.62
34KEA3	X	27.57	1.87	2.06	29.37	3.12	3.32
3AVQLN		26.72	1.02	1.12	27.43	1.18	1.26
3CDNXZ		25.10	-0.60	-0.66	25.70	-0.55	-0.59
3D828Q		27.50	1.80	1.98	28.20	1.95	2.07
3DTC9K		25.39	-0.31	-0.34	26.14	-0.11	-0.12
3JTBLA	*	28.30	2.60	2.86	28.60	2.35	2.50
3P4HBU		25.82	0.12	0.13	26.83	0.58	0.62
3WKZLF	X	26.27	0.57	0.62	29.45	3.20	3.41
47MV2Q	*	24.67	-1.03	-1.14	26.64	0.39	0.41
4HGJ4Y		25.38	-0.32	-0.35	26.11	-0.14	-0.15
4P3ATE	X	30.10	4.40	4.84	24.80	-1.45	-1.54
4VKJMN		24.80	-0.90	-0.99	24.50	-1.75	-1.86
672CY6		25.50	-0.20	-0.22	26.00	-0.25	-0.27
68VZGZ		24.56	-1.15	-1.26	25.38	-0.87	-0.92
6AKKX6		24.30	-1.40	-1.54	25.54	-0.71	-0.76
6YLPY9		26.30	0.60	0.66	27.60	1.35	1.44
84ARUP		25.15	-0.55	-0.61	25.18	-1.07	-1.14
87TCNF		24.90	-0.80	-0.88	25.30	-0.95	-1.01
8C48VA		27.00	1.30	1.43	27.10	0.85	0.90
8DBPPY		26.20	0.50	0.55	25.80	-0.45	-0.48
8HPUAT		25.70	0.00	0.00	25.70	-0.55	-0.59
99ZUMB		25.24	-0.46	-0.51	26.11	-0.14	-0.15
9LG3U9		25.09	-0.61	-0.67	25.67	-0.58	-0.62
9PG7Q2	X	29.20	3.50	3.85	28.20	1.95	2.07
ACC2J9		25.00	-0.70	-0.77	25.75	-0.50	-0.53
APWQCJ		24.88	-0.82	-0.90	24.45	-1.80	-1.92
AQ9FGG	X	18.52	-7.18	-7.91	26.73	0.48	0.51
AWFGR6		25.50	-0.20	-0.22	26.40	0.15	0.16
BEWCVJ		25.37	-0.33	-0.37	26.49	0.24	0.25
BG69A2	*	28.00	2.30	2.53	27.90	1.65	1.76
BXM93H		25.56	-0.15	-0.16	25.34	-0.91	-0.97
BZAA8Z		27.80	2.10	2.31	27.70	1.45	1.54
CLNJGW		25.30	-0.40	-0.44	26.50	0.25	0.27
DKYNXF		26.34	0.63	0.70	26.75	0.50	0.53
E2GLGZ		25.60	-0.10	-0.11	25.80	-0.45	-0.48
E4MYAZ		24.80	-0.90	-0.99	26.20	-0.05	-0.05
E79XCW	X	29.40	3.70	4.07	28.60	2.35	2.50
ECGAGB		26.30	0.60	0.66	26.20	-0.05	-0.05
EMGULN	*	25.67	-0.03	-0.03	24.76	-1.49	-1.59

		Sample F83			Sample F84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
ERAYER		25.90	0.20	0.22	26.30	0.05	0.05
ETK8TY		26.70	1.00	1.10	27.80	1.55	1.65
F4WHHW	X	28.60	2.90	3.19	27.80	1.55	1.65
FTD4FU	X	30.10	4.40	4.84	27.90	1.65	1.76
GANV76		25.41	-0.29	-0.32	24.80	-1.45	-1.54
GFPATR	X	33.40	7.70	8.48	29.40	3.15	3.35
GLUFF3		25.63	-0.07	-0.08	25.79	-0.46	-0.49
GTUGJW		26.00	0.30	0.33	27.00	0.75	0.80
H3HLCH		24.80	-0.90	-0.99	25.40	-0.85	-0.90
HAZLGE		25.90	0.20	0.22	26.00	-0.25	-0.27
J8L7DK		26.54	0.84	0.93	27.12	0.87	0.92
JVAQKT	X	28.50	2.80	3.08	27.70	1.45	1.54
KATLMB		26.60	0.90	0.99	27.50	1.25	1.33
KDVMNU		26.50	0.80	0.88	26.90	0.65	0.69
LMEFFG		24.79	-0.91	-1.00	25.38	-0.87	-0.93
LPFWTQ		25.90	0.20	0.22	26.34	0.09	0.09
LPWPEF		25.10	-0.60	-0.66	26.30	0.05	0.05
LTVNJJ		23.80	-1.90	-2.09	24.10	-2.15	-2.29
LV3DXA		26.40	0.70	0.77	28.00	1.75	1.86
M3K4XA		26.68	0.98	1.08	27.38	1.13	1.20
MGJ7HM	*	28.18	2.48	2.73	27.92	1.67	1.78
MYH7N3		25.60	-0.10	-0.11	26.40	0.15	0.16
N6Z3LN		27.80	2.10	2.31	28.00	1.75	1.86
NBNK3K		25.92	0.22	0.24	26.85	0.60	0.64
NPVWQD	X	24.60	-1.10	-1.21	22.70	-3.55	-3.78
NTRAZ4		26.00	0.30	0.33	27.20	0.95	1.01
P8MYRT		24.95	-0.75	-0.83	25.76	-0.49	-0.52
Q4Z3U8		25.45	-0.26	-0.28	25.59	-0.66	-0.70
Q776KR		25.20	-0.50	-0.55	25.90	-0.35	-0.37
Q7BHCU		25.50	-0.20	-0.22	26.60	0.35	0.37
QJC9WD		26.11	0.41	0.45	26.54	0.29	0.31
QMYUMF		24.34	-1.36	-1.50	25.95	-0.30	-0.32
QVLVYJ		26.61	0.91	1.00	26.13	-0.12	-0.13
R9PKAQ		25.82	0.12	0.13	26.54	0.29	0.31
RM9M72		25.20	-0.50	-0.55	25.90	-0.35	-0.37
RPGAW9		25.60	-0.10	-0.11	25.20	-1.05	-1.12
RPXMV6		25.32	-0.38	-0.42	25.69	-0.56	-0.60
RTW2JU		26.90	1.20	1.32	27.40	1.15	1.22
T6MND9		24.51	-1.19	-1.31	25.09	-1.16	-1.23
TCMJ4F		25.65	-0.05	-0.06	27.11	0.86	0.91
TJ9E6J	X	30.50	4.80	5.28	27.30	1.05	1.12
TNYPG3		25.60	-0.10	-0.11	26.03	-0.22	-0.23
TUATDW		26.30	0.60	0.66	26.60	0.35	0.37
UTRUF7		24.51	-1.19	-1.31	24.80	-1.45	-1.54
V3DCCP		24.00	-1.70	-1.87	24.20	-2.05	-2.18
VT6K72		26.11	0.41	0.45	26.25	0.00	0.00
VTLC68		25.80	0.10	0.11	26.70	0.45	0.48

WebCode	Data Flag	Sample F83 Lab Mean	Sample F83 Diff. from Grand Mean	Sample F83 CPV	Sample F84 Lab Mean	Sample F84 Diff. from Grand Mean	Sample F84 CPV
W39UVK		24.40	-1.30	-1.43	25.50	-0.75	-0.80
WL6B7A		24.30	-1.40	-1.54	25.20	-1.05	-1.12
WPL7XL		26.62	0.92	1.01	27.42	1.16	1.24
WYQZBY		26.00	0.30	0.33	25.70	-0.55	-0.59
X4GW9N		25.30	-0.40	-0.44	25.40	-0.85	-0.90
XGLFYB		24.70	-1.00	-1.10	25.70	-0.55	-0.59
XHCPNJ	X	31.68	5.98	6.58	29.11	2.86	3.04
XXV9PY		25.38	-0.32	-0.35	25.53	-0.72	-0.77
Y26NRW		26.00	0.30	0.33	26.40	0.15	0.16
Y4VYJP		26.11	0.41	0.45	26.69	0.44	0.46
YGHAZT		26.25	0.55	0.61	26.40	0.15	0.16
YZXWT9		26.50	0.80	0.88	26.89	0.64	0.68
ZCLREL		25.20	-0.50	-0.55	25.20	-1.05	-1.12
ZDWRFM		25.67	-0.03	-0.03	25.96	-0.29	-0.31
ZNFURT		24.80	-0.90	-0.99	24.80	-1.45	-1.54
ZV2M4T		25.58	-0.12	-0.13	26.30	0.05	0.05
ZZC7CG		26.76	1.06	1.17	26.76	0.51	0.54

Summary Statistics

	Sample F83		Sample F84	
Grand Means	25.70	ksi	26.25	ksi
Stnd Dev Btwn Labs	0.91	ksi	0.94	ksi

Samples F83, F84 : AISI 1008 - 14G, AISI 1008 - 16G

Statistics based on 98 of 111 reporting participants

Comments on Assigned Data Flags for Test #1132

34KEA3 (X) - Data for sample F84 are high.

3WKZLF (X) - Data for sample F84 are high.

4P3ATE (X) - Data for sample F83 are high.

9PG7Q2 (X) - Data for sample F83 are high.

AQ9FGG (X) - Data for sample F83 are low.

E79XCW (X) - Data for sample F83 are high.

F4WHHW (X) - Data for sample F83 are high.

FTD4FU (X) - Data for sample F83 are high.

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

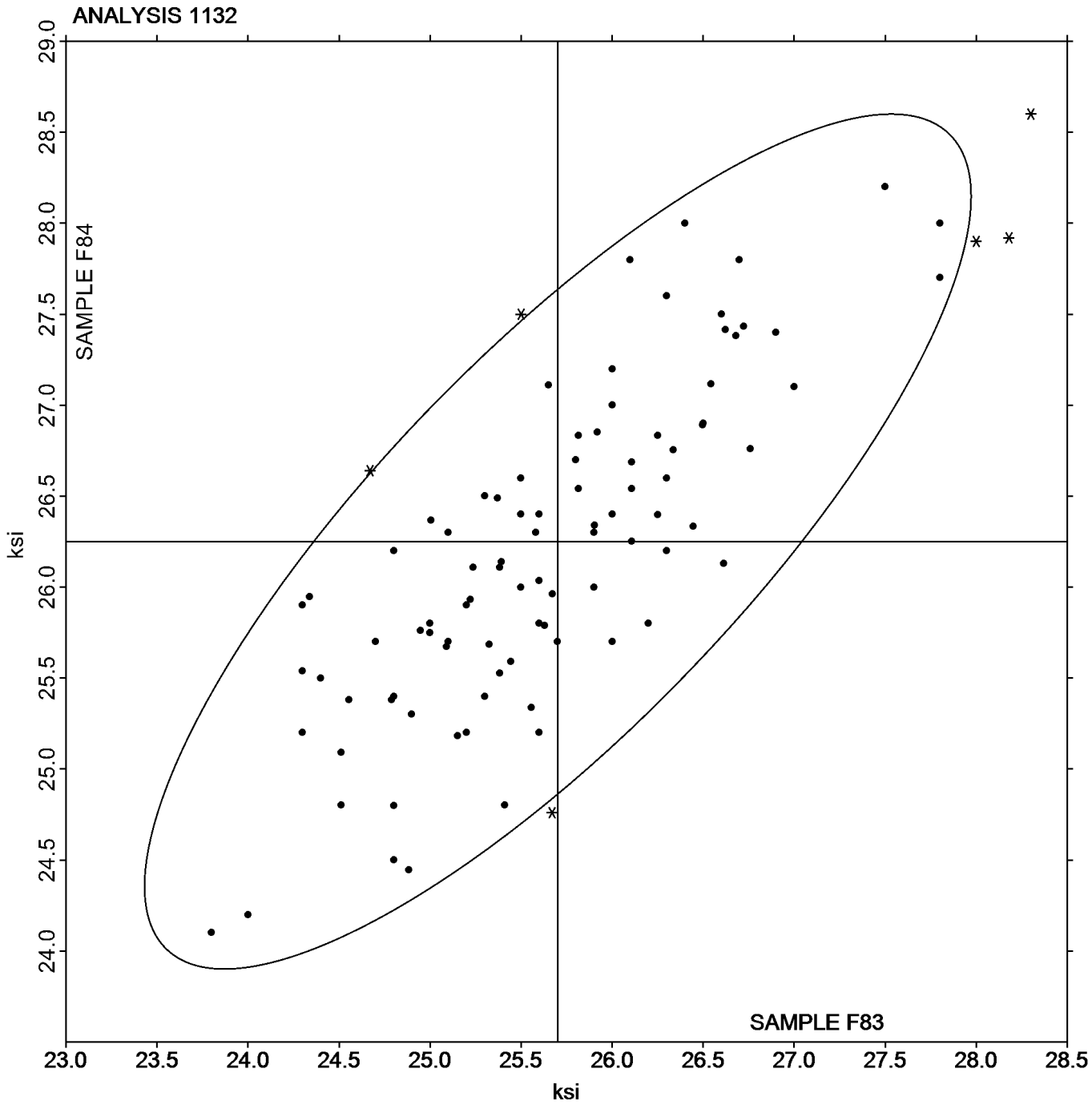
JVAQKT (X) - Data for sample F83 are high.

NPVWQD (X) - Data for sample F84 are low.

TJ9E6J (X) - Data for sample F83 are high.

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

SAMPLE F83	SAMPLE F84
25.70 ksi	26.25 ksi



		Sample F83			Sample F84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
28AUDX	X	34.50	-9.46	-3.88	34.00	-9.03	-3.73
28NXR6	X	42.00	-1.96	-0.80	45.00	1.97	0.81
29H68F	X	40.50	-3.46	-1.42	26.70	-16.33	-6.74
2GEEMZ		44.20	0.24	0.10	43.60	0.57	0.23
2GQBR6		48.30	4.34	1.78	46.60	3.57	1.47
2HNCZH		43.40	-0.56	-0.23	42.50	-0.53	-0.22
2HRC76		44.35	0.39	0.16	44.20	1.17	0.48
2WL2YF		42.40	-1.56	-0.64	41.50	-1.53	-0.63
34KEA3		48.30	4.34	1.78	46.50	3.47	1.43
3AVQLN		42.40	-1.56	-0.64	41.80	-1.23	-0.51
3CDNXZ		43.30	-0.66	-0.27	42.40	-0.63	-0.26
3D828Q		44.00	0.04	0.02	44.00	0.97	0.40
3DTC9K		44.00	0.04	0.02	41.00	-2.03	-0.84
3JTBLA	*	40.00	-3.96	-1.62	41.20	-1.83	-0.76
3P4HBU	*	45.20	1.24	0.51	41.50	-1.53	-0.63
3WKZLF		41.76	-2.20	-0.90	39.67	-3.36	-1.39
47MV2Q		45.40	1.44	0.59	42.60	-0.43	-0.18
4HGJ4Y		40.00	-3.96	-1.62	38.00	-5.03	-2.08
4P3ATE	X	44.80	0.84	0.35	40.10	-2.93	-1.21
4VKJMN		43.23	-0.73	-0.30	42.77	-0.26	-0.11
672CY6		40.90	-3.06	-1.25	40.30	-2.73	-1.13
68VZGZ		43.90	-0.06	-0.02	42.80	-0.23	-0.10
6AKKX6		45.00	1.04	0.43	42.50	-0.53	-0.22
6YLPY9		43.10	-0.86	-0.35	41.10	-1.93	-0.80
7TQF42	X	45.00	1.04	0.43	40.00	-3.03	-1.25
84ARUP	*	51.24	7.28	2.99	49.44	6.41	2.65
87TCNF		44.90	0.94	0.39	43.70	0.67	0.28
8C48VA		41.50	-2.46	-1.01	41.50	-1.53	-0.63
8DBPPY		47.00	3.04	1.25	47.00	3.97	1.64
8HPUAT		46.50	2.54	1.04	45.60	2.57	1.06
99ZUMB		44.80	0.84	0.35	43.60	0.57	0.23
9LG3U9		42.40	-1.56	-0.64	42.20	-0.83	-0.34
9PG7Q2	*	37.50	-6.46	-2.65	37.50	-5.53	-2.28
ACC2J9		46.40	2.44	1.00	45.60	2.57	1.06
APWQCJ		41.60	-2.36	-0.97	42.00	-1.03	-0.43
AQ9FGG		43.70	-0.26	-0.11	44.20	1.17	0.48
AWFGR6		45.50	1.54	0.63	46.50	3.47	1.43
BEWCVJ		43.50	-0.46	-0.19	43.70	0.67	0.28
BG69A2		41.60	-2.36	-0.97	41.00	-2.03	-0.84
BXM93H		39.60	-4.36	-1.79	39.60	-3.43	-1.42
BZAA8Z	X	39.20	-4.76	-1.95	41.60	-1.43	-0.59
CLNJGW		46.00	2.04	0.84	46.00	2.97	1.23
DKYNXF		44.62	0.66	0.27	43.54	0.51	0.21
E2GLGZ		46.40	2.44	1.00	45.80	2.77	1.14
E4MYAZ		44.40	0.44	0.18	42.80	-0.23	-0.10
E79XCW		41.10	-2.86	-1.17	39.90	-3.13	-1.29
ECGAGB		45.30	1.34	0.55	44.50	1.47	0.61

Fasteners and Metals Interlaboratory Testing Program

Analysis 1133

Elongation: Lab-Machined Flat Steel
ASTM E8

Cycle 138
2nd Qtr
2022

		Sample F83			Sample F84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
EMGULN	*	44.20	0.24	0.10	45.60	2.57	1.06
ERAYER		43.90	-0.06	-0.02	42.80	-0.23	-0.10
ETK8TY		43.00	-0.96	-0.39	41.10	-1.93	-0.80
F4WHHW		40.30	-3.66	-1.50	39.00	-4.03	-1.67
FTD4FU	X	31.50	-12.46	-5.11	31.50	-11.53	-4.76
GANV76		43.10	-0.86	-0.35	41.60	-1.43	-0.59
GFPATR		46.40	2.44	1.00	44.90	1.87	0.77
GLUFF3	X	17.68	-26.28	-10.78	18.33	-24.70	-10.20
GTUGJW		46.30	2.34	0.96	46.20	3.17	1.31
H3HLCH	*	50.40	6.44	2.64	49.50	6.47	2.67
HAZLGE		46.50	2.54	1.04	44.20	1.17	0.48
J8L7DK		46.23	2.27	0.93	44.83	1.80	0.74
JVAQKT		41.80	-2.16	-0.88	40.20	-2.83	-1.17
KATLMB		41.90	-2.06	-0.84	41.80	-1.23	-0.51
KDVMNU		42.50	-1.46	-0.60	41.80	-1.23	-0.51
LMEFFG		45.10	1.14	0.47	44.30	1.27	0.52
LPFWTQ		42.00	-1.96	-0.80	41.00	-2.03	-0.84
LPWPEF		45.50	1.54	0.63	43.30	0.27	0.11
LTVNJJ		41.00	-2.96	-1.21	40.00	-3.03	-1.25
LV3DXA		43.50	-0.46	-0.19	42.50	-0.53	-0.22
M3K4XA		42.90	-1.06	-0.43	43.20	0.17	0.07
MGJ7HM		43.53	-0.43	-0.17	41.17	-1.86	-0.77
MYH7N3		44.70	0.74	0.30	44.20	1.17	0.48
N6Z3LN	*	37.50	-6.46	-2.65	37.50	-5.53	-2.28
NBNK3K		46.80	2.84	1.17	46.90	3.87	1.60
NPVWQD	X	44.20	0.24	0.10	50.30	7.27	3.00
NTRAZ4	X	52.70	8.74	3.59	51.10	8.07	3.33
P8MYRT		41.33	-2.63	-1.08	41.07	-1.96	-0.81
Q4Z3U8		44.70	0.74	0.30	43.64	0.61	0.25
Q776KR		45.50	1.54	0.63	43.90	0.87	0.36
Q7BHCU		46.00	2.04	0.84	45.30	2.27	0.94
QJC9WD		44.00	0.04	0.02	44.00	0.97	0.40
QMYUMF		43.92	-0.04	-0.01	42.89	-0.14	-0.06
QVLVYJ	*	40.00	-3.96	-1.62	37.40	-5.63	-2.33
R9PKAQ		43.90	-0.06	-0.02	42.80	-0.23	-0.10
RM9M72		41.40	-2.56	-1.05	40.30	-2.73	-1.13
RPGAW9		43.60	-0.36	-0.15	43.90	0.87	0.36
RPXMV6		44.60	0.64	0.26	43.70	0.67	0.28
RTW2JU		43.50	-0.46	-0.19	42.30	-0.73	-0.30
T6MND9		42.00	-1.96	-0.80	42.00	-1.03	-0.43
TCMJ4F	X	46.80	2.84	1.17	23.76	-19.27	-7.96
TJ9E6J	X	47.70	3.74	1.54	38.10	-4.93	-2.04
TNYPG3		43.00	-0.96	-0.39	40.80	-2.23	-0.92
TUATDW		45.40	1.44	0.59	44.60	1.57	0.65
UTRUF7		40.00	-3.96	-1.62	39.00	-4.03	-1.67
V3DCCP		44.50	0.54	0.22	43.20	0.17	0.07
VT6K72		43.60	-0.36	-0.15	43.00	-0.03	-0.01

		Sample F83			Sample F84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
VT7WVC	X	40.00	-3.96	-1.62	42.50	-0.53	-0.22
VTLC68		46.00	2.04	0.84	45.00	1.97	0.81
W39UVK		41.40	-2.56	-1.05	40.50	-2.53	-1.05
WL6B7A	X	47.50	3.54	1.45	49.00	5.97	2.46
WPL7XL		46.40	2.44	1.00	46.00	2.97	1.23
WYQZBY		41.10	-2.86	-1.17	40.20	-2.83	-1.17
X4GW9N	X	25.00	-18.96	-7.77	25.00	-18.03	-7.45
XGLFYB		47.00	3.04	1.25	45.50	2.47	1.02
XHCPNJ		44.00	0.04	0.02	44.00	0.97	0.40
XXV9PY		44.30	0.34	0.14	44.60	1.57	0.65
Y26NRW		47.00	3.04	1.25	45.00	1.97	0.81
Y4VYJP	X	47.00	3.04	1.25	49.00	5.97	2.46
YGHAZT		43.80	-0.16	-0.06	43.10	0.07	0.03
YZXWT9		47.30	3.34	1.37	46.40	3.37	1.39
ZCLREL		44.50	0.54	0.22	43.80	0.77	0.32
ZDWRFM		46.40	2.44	1.00	43.40	0.37	0.15
ZNFURT		47.75	3.79	1.56	46.67	3.64	1.50
ZV2M4T		45.00	1.04	0.43	43.90	0.87	0.36
ZZC7CG		43.10	-0.86	-0.35	42.50	-0.53	-0.22

Summary Statistics

	Sample F83		Sample F84	
Grand Means	43.96	Percent	43.03	Percent
Stnd Dev Btwn Labs	2.44	Percent	2.42	Percent

Samples F83, F84 : AISI 1008 - 14G, AISI 1008 - 16G

Statistics based on 97 of 113 reporting participants

Comments on Assigned Data Flags for Test #1133

28AUDX (X) - Data for both samples are low. Possible Systematic Error.

28NXR6 (X) - Inconsistent in testing between samples.

29H68F (X) - Data for sample F84 are low.

4P3ATE (X) - Inconsistent in testing between samples.

7TQF42 (X) - Inconsistent in testing between samples.

BZAA8Z (X) - Inconsistent in testing between samples.

FTD4FU (X) - Data for both samples are low. Possible Systematic Error.

GLUFF3 (X) - Data for both samples are low. Possible Systematic Error.

NPVWQD (X) - Data for sample F84 are high.

NTRAZ4 (X) - Data for both samples are high. Possible Systematic Error.

TCMJ4F (X) - Data for sample F84 are low.

TJ9E6J (X) - Inconsistent in testing between samples.

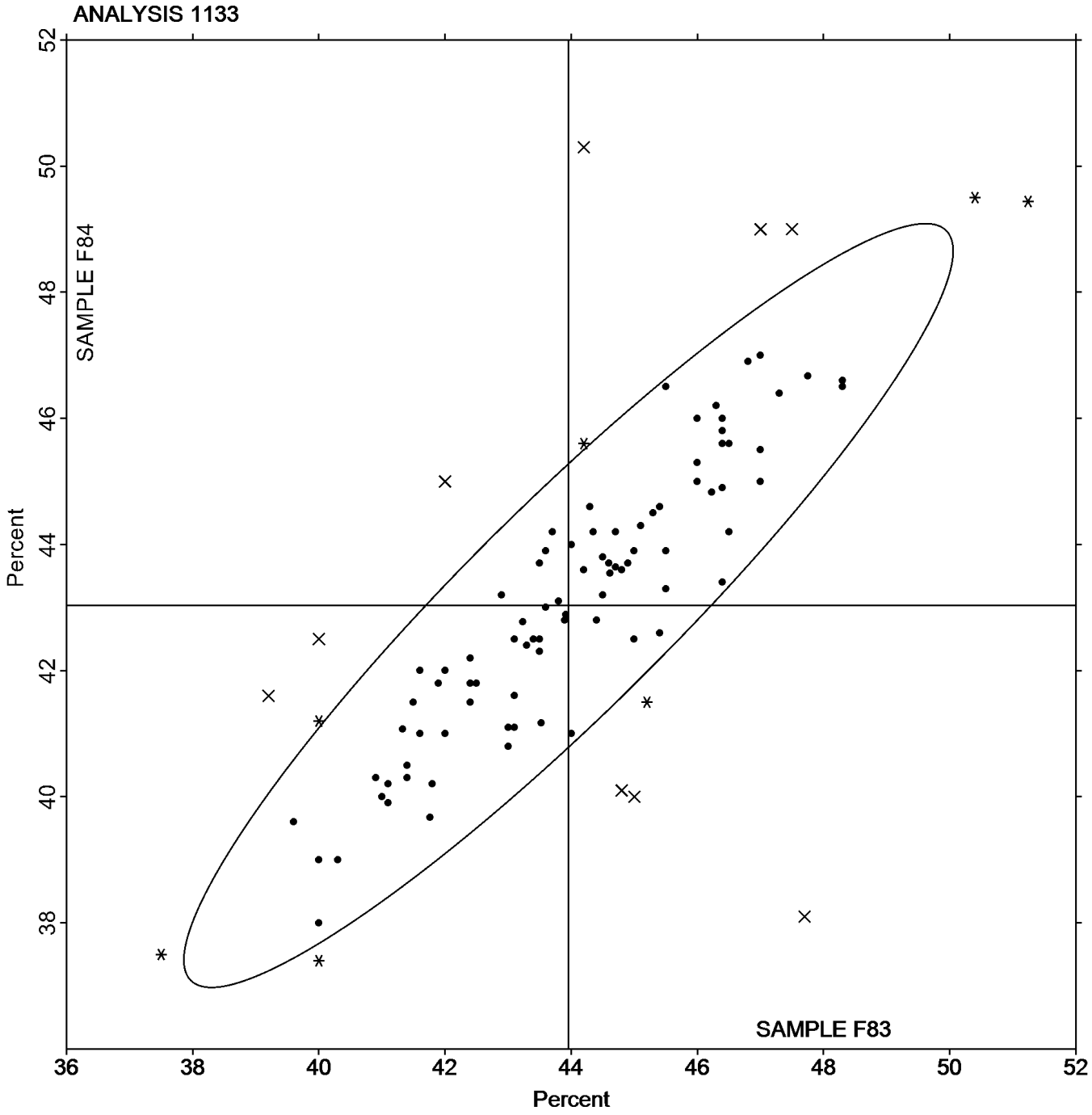
VT7WVC (X) - Inconsistent in testing between samples.

WL6B7A (X) - Inconsistent in testing between samples.

X4GW9N (X) - Data for both samples are low. Possible Systematic Error.

Y4VYJP (X) - Inconsistent in testing between samples.

SAMPLE F83	SAMPLE F84
43.96 Percent	43.03 Percent



		Sample F83			Sample F84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HNCZH		1.620	-0.051	-0.37	1.660	-0.017	-0.13
34KEA3		1.640	-0.031	-0.22	1.680	0.003	0.03
3JTBLA	X	38.70	37.029	264.29	39.90	38.223	296.51
47MV2Q	X	5,000	4,998.329	35,675.55	5,000	4,998.323	38,773.63
4HGJ4Y		1.628	-0.043	-0.31	1.743	0.066	0.51
8DBPPY		1.688	0.017	0.12	1.695	0.018	0.14
8HPUAT		1.480	-0.191	-1.37	1.500	-0.177	-1.37
99ZUMB		1.720	0.049	0.35	1.810	0.133	1.03
9LG3U9		1.600	-0.071	-0.51	1.650	-0.027	-0.21
9PG7Q2	X	0.5000	-1.171	-8.36	0.5000	-1.177	-9.13
APWQCJ	*	2.070	0.399	2.85	1.810	0.133	1.03
BXM93H		1.615	-0.056	-0.40	1.717	0.040	0.31
E2GLGZ		1.684	0.013	0.09	1.645	-0.032	-0.25
ECGAGB		1.650	-0.021	-0.15	1.710	0.033	0.26
EMGULN		1.660	-0.011	-0.08	1.580	-0.097	-0.75
GANV76		1.510	-0.161	-1.15	1.540	-0.137	-1.06
GLUFF3		1.628	-0.043	-0.31	1.867	0.190	1.48
GTUGJW		1.600	-0.071	-0.51	1.600	-0.077	-0.60
H3HLCH		1.641	-0.030	-0.22	1.671	-0.006	-0.04
KATLMB	*	2.028	0.357	2.55	2.090	0.413	3.21
LMEFFG		1.530	-0.141	-1.01	1.600	-0.077	-0.60
MYH7N3		1.620	-0.051	-0.37	1.670	-0.007	-0.05
Q4Z3U8	*	1.767	0.096	0.69	1.435	-0.242	-1.88
RPXMV6		1.870	0.199	1.42	1.750	0.073	0.57
T6MND9		1.730	0.059	0.42	1.770	0.093	0.72
TUATDW		1.740	0.069	0.49	1.670	-0.007	-0.05
VTLC68		1.671	0.000	0.00	1.662	-0.015	-0.11
W39UVK		1.671	0.000	0.00	1.604	-0.073	-0.56
WPL7XL		1.520	-0.151	-1.08	1.620	-0.057	-0.44
X4GW9N		1.820	0.149	1.06	1.620	-0.057	-0.44
XHCPNJ	X	0.8350	-0.836	-5.97	0.8800	-0.797	-6.18
XXV9PY		1.820	0.149	1.06	1.860	0.183	1.42
Y4VYJP		1.600	-0.071	-0.51	1.700	0.023	0.18
YGHAZT		1.390	-0.281	-2.01	1.410	-0.267	-2.07
YZXWT9		1.660	-0.011	-0.08	1.630	-0.047	-0.36
ZV2M4T		1.610	-0.061	-0.44	1.686	0.009	0.07

Summary Statistics

	Sample F83	Sample F84
Grand Means	1.671	1.677
Stnd Dev Btwn Labs	0.140	0.129

Samples F83, F84 : AISI 1008 - 14G, AISI 1008 - 16G

Statistics based on 32 of 36 reporting participants

Comments on Assigned Data Flags for Test #1134

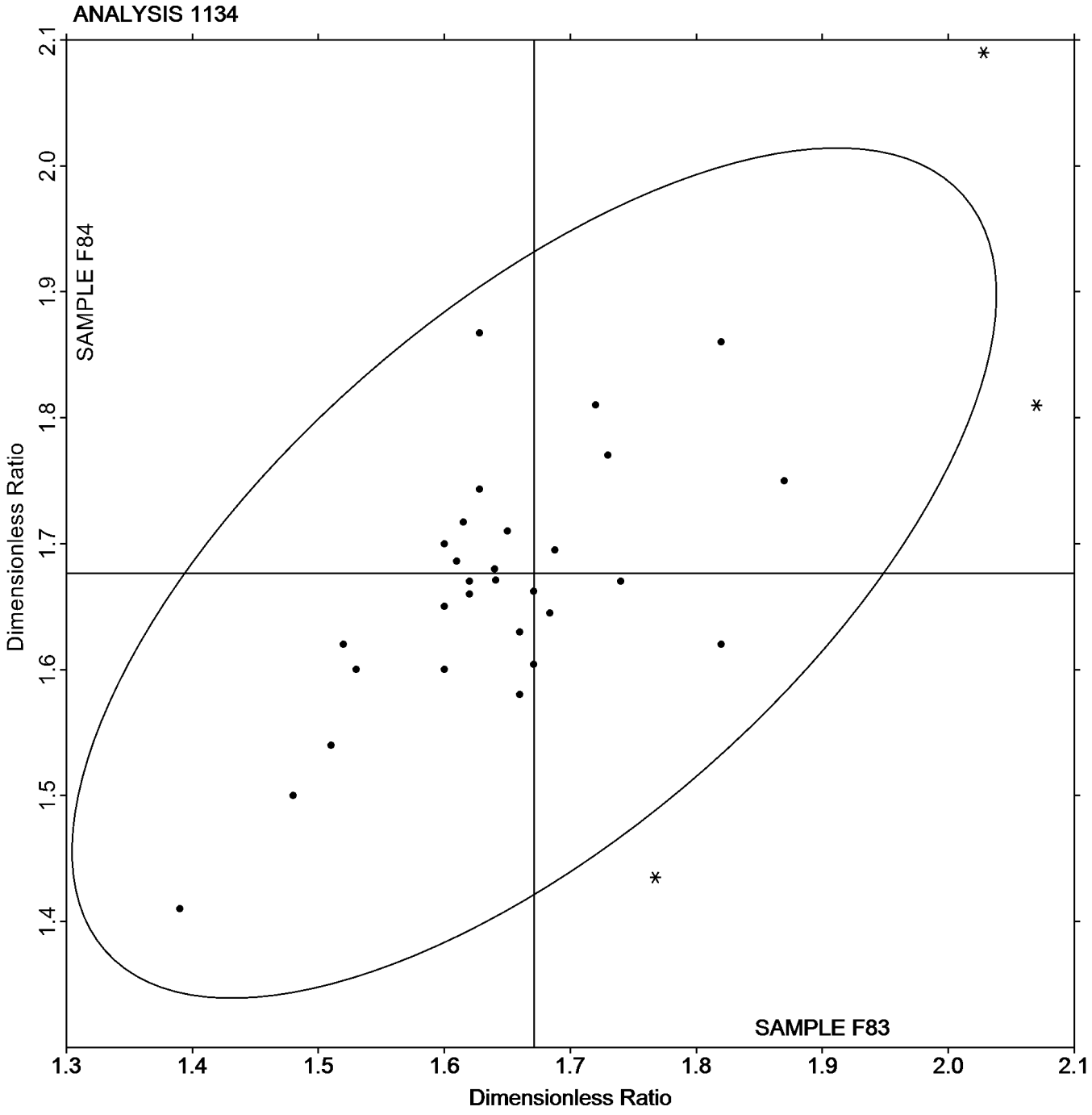
3JTBLA (X) - Extreme data.

47MV2Q (X) - Extreme data.

9PG7Q2 (X) - Data for both samples are low.

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

SAMPLE F83	SAMPLE F84
1.671	1.677



		Sample F83			Sample F84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
29H68F		0.2230	-0.0002	-0.02	0.2180	-0.0037	-0.61
2GEEMZ		0.2240	0.0008	0.12	0.2180	-0.0037	-0.61
2HNCZH		0.2220	-0.0012	-0.17	0.2210	-0.0007	-0.12
34KEA3		0.2250	0.0018	0.27	0.2200	-0.0017	-0.28
3D828Q	X	0.2100	-0.0132	-1.92	0.2000	-0.0217	-3.55
47MV2Q	X	5,000	4,999.7768	728,820.9(	5,000	4,999.7783	16,610.84
4HGJ4Y		0.2400	0.0168	2.45	0.2340	0.0123	2.00
8DBPPY		0.2200	-0.0032	-0.46	0.2210	-0.0007	-0.12
8HPUAT		0.2190	-0.0042	-0.61	0.2210	-0.0007	-0.12
99ZUMB		0.2150	-0.0082	-1.19	0.2140	-0.0077	-1.26
9LG3U9		0.2200	-0.0032	-0.46	0.2200	-0.0017	-0.28
9PG7Q2	X	0.5000	0.2768	40.35	0.5000	0.2783	45.45
APWQCJ		0.2290	0.0058	0.85	0.2340	0.0123	2.00
BXM93H		0.2170	-0.0062	-0.90	0.2220	0.0003	0.05
DKYNXF		0.2302	0.0070	1.02	0.2246	0.0029	0.47
E2GLGZ		0.2210	-0.0022	-0.32	0.2220	0.0003	0.05
E4MYAZ		0.2293	0.0061	0.89	0.2217	0.0000	0.00
ECGAGB		0.2230	-0.0002	-0.02	0.2240	0.0023	0.37
EMGULN	*	0.2200	-0.0032	-0.46	0.2300	0.0083	1.35
ERAYER		0.2190	-0.0042	-0.61	0.2160	-0.0057	-0.93
ETK8TY	*	0.2330	0.0098	1.43	0.2170	-0.0047	-0.77
GANV76		0.2300	0.0068	1.00	0.2200	-0.0017	-0.28
GLUFF3	X	0.1820	-0.0412	-6.00	0.1770	-0.0447	-7.30
GTUGJW		0.2160	-0.0072	-1.05	0.2180	-0.0037	-0.61
H3HLCH		0.2370	0.0138	2.02	0.2370	0.0153	2.49
J8L7DK		0.2260	0.0028	0.41	0.2205	-0.0012	-0.20
KATLMB		0.2190	-0.0042	-0.61	0.2170	-0.0047	-0.77
KDVMNU		0.2100	-0.0132	-1.92	0.2100	-0.0117	-1.91
LMEFFG		0.2300	0.0068	1.00	0.2200	-0.0017	-0.28
LPFWTQ		0.2270	0.0038	0.56	0.2260	0.0043	0.70
M3K4XA		0.2300	0.0068	1.00	0.2300	0.0083	1.35
MYH7N3		0.2300	0.0068	1.00	0.2320	0.0103	1.68
NTRAZ4		0.2267	0.0035	0.51	0.2225	0.0008	0.13
Q4Z3U8		0.2193	-0.0039	-0.56	0.2186	-0.0031	-0.51
R9PKAQ		0.2070	-0.0162	-2.36	0.2110	-0.0107	-1.75
RM9M72		0.2280	0.0048	0.70	0.2270	0.0053	0.86
RPXMV6		0.2140	-0.0092	-1.34	0.2140	-0.0077	-1.26
T6MND9		0.2310	0.0078	1.14	0.2290	0.0073	1.19
TUATDW		0.2220	-0.0012	-0.17	0.2250	0.0033	0.53
VT6K72		0.2160	-0.0072	-1.05	0.2170	-0.0047	-0.77
VTLC68		0.2210	-0.0022	-0.32	0.2210	-0.0007	-0.12
W39UVK		0.2270	0.0038	0.56	0.2240	0.0023	0.37
WPL7XL		0.2230	-0.0002	-0.02	0.2220	0.0003	0.05
WYQZBY		0.2250	0.0018	0.27	0.2260	0.0043	0.70
X4GW9N		0.2150	-0.0082	-1.19	0.2130	-0.0087	-1.42
XHCPNJ	X	0.3026	0.0794	11.58	0.2975	0.0758	12.38
XXV9PY		0.2180	-0.0052	-0.75	0.2180	-0.0037	-0.61

WebCode	Data Flag	Sample F83 Lab Mean	Sample F83 Diff. from Grand Mean	Sample F83 CPV	Sample F84 Lab Mean	Sample F84 Diff. from Grand Mean	Sample F84 CPV
Y4VYJP		0.2300	0.0068	1.00	0.2200	-0.0017	-0.28
YGHAZT		0.2210	-0.0022	-0.32	0.2220	0.0003	0.05
YZXWT9		0.2270	0.0038	0.56	0.2290	0.0073	1.19
ZV2M4T		0.2110	-0.0122	-1.77	0.2110	-0.0107	-1.75
ZZC7CG		0.2225	-0.0007	-0.10	0.2222	0.0004	0.07

Summary Statistics

	Sample F83	Sample F84
Grand Means	0.2232	0.2217
Stnd Dev Btwn Labs	0.0069	0.0061

Samples F83, F84 : AISI 1008 - 14G, AISI 1008 - 16G

Statistics based on 47 of 52 reporting participants

Comments on Assigned Data Flags for Test #1135

3D828Q (X) - Data for sample F84 are low.

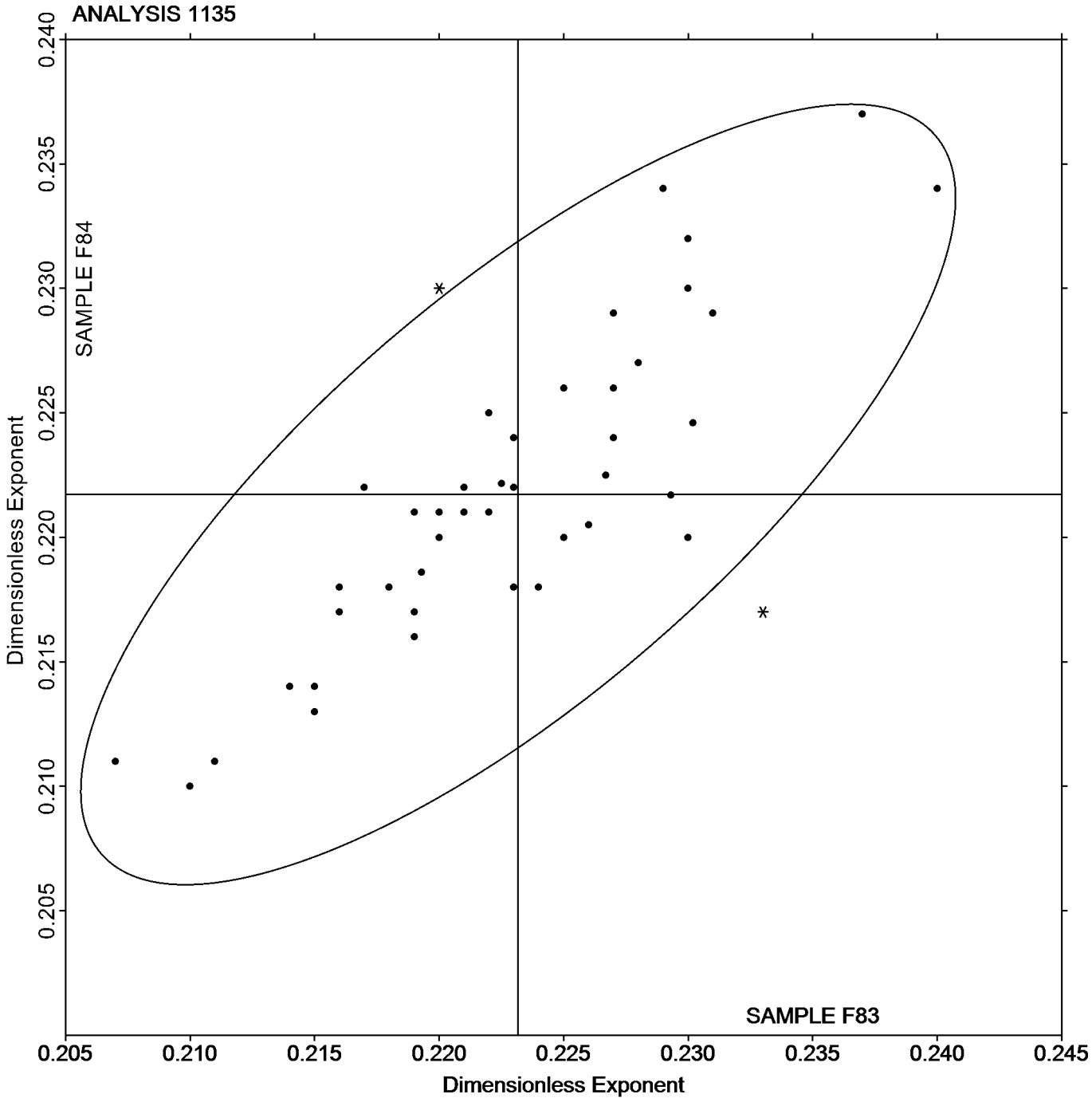
47MV2Q (X) - Extreme data.

9PG7Q2 (X) - Data for both samples are high. Possible Systematic Error.

GLUFF3 (X) - Data for both samples are low. Possible Systematic Error.

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

SAMPLE F83	SAMPLE F84
0.2232	0.2217



		Sample X83			Sample X84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
24Q8U7		137.17	-0.37	-0.28	137.40	-1.38	-1.29
28AUDX		137.67	0.13	0.10	139.40	0.62	0.58
2T9DAG		137.27	-0.27	-0.20	139.10	0.32	0.30
2YUBRD		137.10	-0.43	-0.33	139.60	0.82	0.76
338DD9		137.27	-0.27	-0.20	139.57	0.78	0.73
3BNRGE		137.87	0.33	0.26	139.70	0.92	0.85
3HHWAF	X	97.13	-40.40	-30.96	98.50	-40.28	-37.49
3MXH3M		137.97	0.43	0.33	137.97	-0.82	-0.76
4P28V3		139.23	1.69	1.30	138.62	-0.16	-0.15
4P3ATE		137.27	-0.27	-0.20	138.40	-0.38	-0.36
4UERZ3		137.53	0.00	0.00	137.63	-1.15	-1.07
6HABHB	X	141.73	4.19	3.21	150.79	12.01	11.17
84ARUP		140.57	3.04	2.33	140.31	1.53	1.42
8LLJPE		136.37	-1.17	-0.89	138.97	0.18	0.17
9TZPZC		137.47	-0.07	-0.05	140.03	1.25	1.16
9YQREA		135.01	-2.52	-1.93	138.25	-0.53	-0.50
BAZD8T		137.20	-0.34	-0.26	138.71	-0.08	-0.07
BYFLN6		137.51	-0.02	-0.02	137.51	-1.27	-1.19
CDGZHR		135.33	-2.20	-1.69	137.33	-1.45	-1.35
CZU93D		136.10	-1.43	-1.10	138.90	0.12	0.11
EKMLG7		140.53	3.00	2.30	141.21	2.42	2.26
F2BCVY		136.43	-1.10	-0.84	137.87	-0.92	-0.85
F34KBP		135.89	-1.64	-1.26	137.88	-0.90	-0.84
FR3P3Y	X	144.61	7.08	5.42	136.09	-2.70	-2.51
FWGUL9		138.23	0.70	0.54	138.27	-0.52	-0.48
FXQWGK		137.67	0.13	0.10	138.00	-0.78	-0.73
GHT8XT		138.30	0.77	0.59	138.53	-0.25	-0.23
JBPC46	X	142.33	4.80	3.68	139.83	1.05	0.98
K7NNZ3	X	135.93	-1.60	-1.23	131.93	-6.85	-6.37
KXDWJZ		136.56	-0.97	-0.75	138.02	-0.76	-0.71
LGPBRY	X	142.35	4.82	3.69	142.37	3.58	3.34
LTVNJJ		138.03	0.50	0.38	138.27	-0.52	-0.48
MZDEL6		137.56	0.03	0.02	138.87	0.09	0.08
N968DV		138.42	0.88	0.68	139.58	0.79	0.74
NTRAZ4		138.30	0.77	0.59	137.40	-1.38	-1.29
PJFDVW		139.13	1.60	1.23	139.20	0.42	0.39
QB2GHU		136.52	-1.02	-0.78	137.97	-0.81	-0.75
QQWC2V		136.67	-0.87	-0.66	139.67	0.88	0.82
RBKH4W		136.30	-1.23	-0.94	138.23	-0.55	-0.51
RK7QHT		138.50	0.97	0.74	139.80	1.02	0.95
RXWGNQ		135.04	-2.50	-1.91	136.19	-2.59	-2.41
RY34V3		137.13	-0.40	-0.31	139.10	0.32	0.30
TVFH8T		138.43	0.90	0.69	140.17	1.38	1.29
UVJMHG		137.67	0.13	0.10	139.00	0.22	0.20
V2H2UN	X	13.61	-123.92	-94.95	13.78	-125.00	-116.33
VFFN3H		137.06	-0.48	-0.36	137.45	-1.33	-1.24
WQHVBA		138.67	1.13	0.87	139.67	0.88	0.82

		Sample X83			Sample X84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
WWY2UF	X	98.70	-38.83	-29.76	98.37	-40.42	-37.61
XAPHFE		140.31	2.78	2.13	140.40	1.62	1.51
XVNTF9		138.92	1.38	1.06	139.49	0.71	0.66
Y9TVNN		135.33	-2.20	-1.69	137.67	-1.12	-1.04
YEUBT3		137.23	-0.30	-0.23	138.73	-0.05	-0.04
YX9L2F	X	10.72	-126.81	-97.17	10.90	-127.88	-119.01
ZB8GKM	X	129.95	-7.58	-5.81	135.90	-2.88	-2.68
ZX368A		138.29	0.76	0.58	141.16	2.37	2.21

Summary Statistics

	Sample X83		Sample X84	
Grand Means	137.53	ksi	138.78	ksi
Stnd Dev Btwn Labs	1.31	ksi	1.07	ksi

Samples X83, X84 : 3/8-16 x 2 1/4, 3/8-16 x 2 1/2

Statistics based on 45 of 55 reporting participants

Comments on Assigned Data Flags for Test #1201

3HHWAF (X) - Data for both samples are low.

6HABHB (X) - Data for both samples are high.

FR3P3Y (X) - Data for sample X83 are high. Inconsistent within the determinations of sample X83.

JBPC46 (X) - Data for sample X83 are high.

K7NNZ3 (X) - Data for sample X84 are low.

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

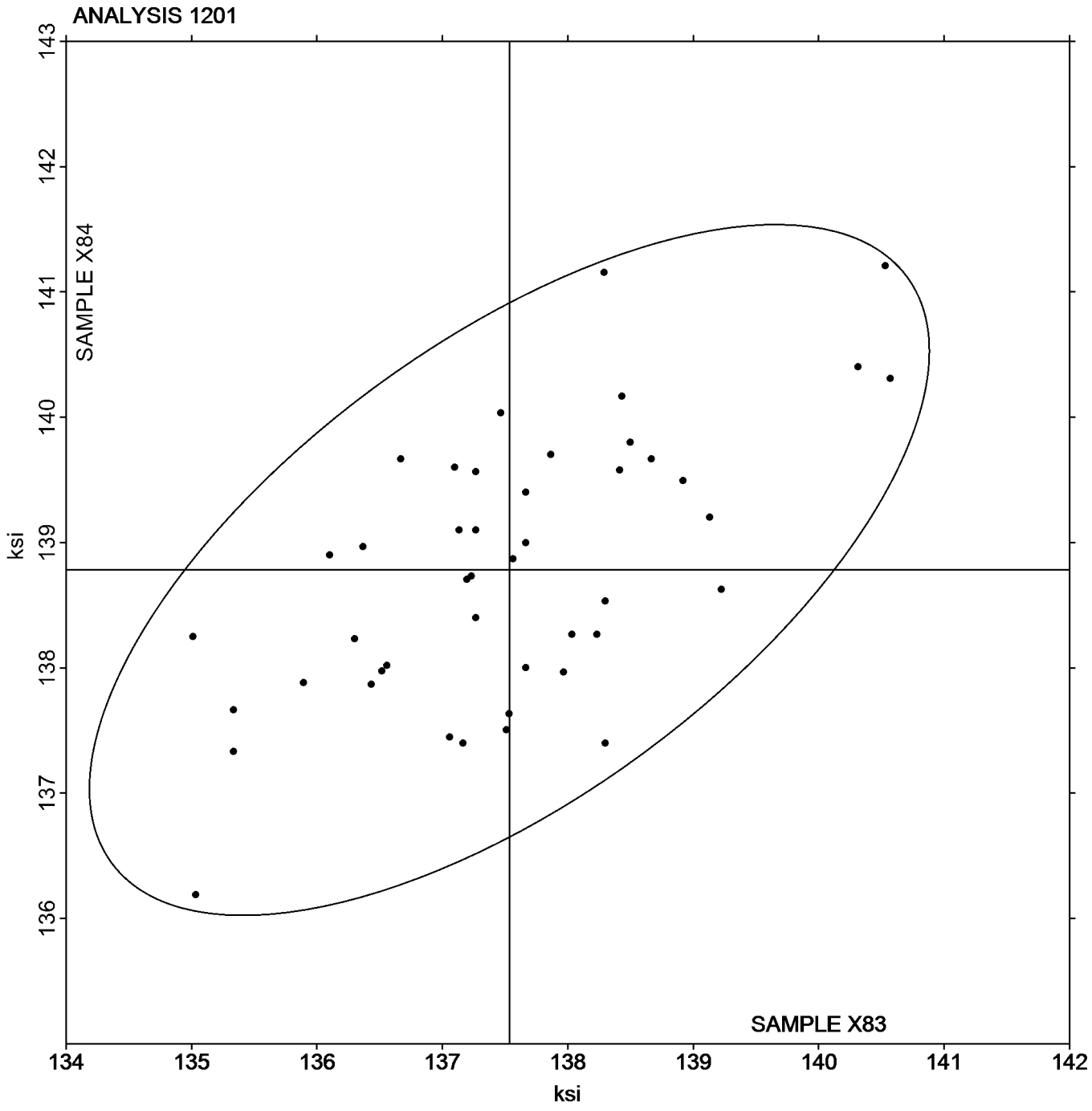
V2H2UN (X) - Data appear to be off by a factor of ten

WWY2UF (X) - Data for both samples are low.

YX9L2F (X) - Extreme data.

ZB8GKM (X) - Data for sample X83 are low. Inconsistent within the determinations of sample X83.

SAMPLE X83	SAMPLE X84
137.53 ksi	138.78 ksi



		Sample Q83			Sample Q84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
24Q8U7		136.93	-1.32	-0.98	138.23	-0.97	-0.70
28AUDX		138.53	0.28	0.21	138.53	-0.67	-0.49
3BNRGE		137.47	-0.79	-0.59	140.10	0.90	0.65
3E2PQL		139.78	1.53	1.13	140.21	1.01	0.74
3HHWAF	X	97.33	-40.92	-30.36	98.37	-40.83	-29.70
3KCKTB		138.77	0.52	0.38	138.73	-0.47	-0.34
3MXH3M		138.23	-0.02	-0.02	139.23	0.03	0.02
4P3ATE	*	135.80	-2.46	-1.82	135.30	-3.90	-2.84
4UERZ3		138.13	-0.12	-0.09	139.23	0.03	0.02
6HABHB	X	144.44	6.19	4.59	143.48	4.28	3.11
7TUTW4		138.67	0.42	0.31	139.31	0.11	0.08
84ARUP		140.54	2.29	1.70	140.73	1.53	1.11
9ARPAJ		139.22	0.97	0.72	140.79	1.59	1.16
9TZPZC		137.77	-0.49	-0.36	139.47	0.27	0.19
BAZD8T		138.03	-0.23	-0.17	138.21	-0.99	-0.72
BQT4AG		138.63	0.38	0.28	139.63	0.43	0.31
BYFLN6		137.89	-0.36	-0.27	138.35	-0.85	-0.62
C7EEK6	X	103.97	-34.29	-25.44	104.79	-34.41	-25.03
CDGZHR		136.00	-2.26	-1.67	137.00	-2.20	-1.60
F2BCVY		136.87	-1.39	-1.03	138.43	-0.77	-0.56
F34KBP		137.33	-0.93	-0.69	138.23	-0.97	-0.70
FA7LGB		137.68	-0.57	-0.42	140.72	1.52	1.10
FR3P3Y		140.09	1.83	1.36	139.05	-0.15	-0.11
FXQWGK		140.00	1.74	1.29	139.00	-0.20	-0.15
GHT8XT		137.17	-1.09	-0.81	138.97	-0.23	-0.17
GPFVW6	X	149.23	10.98	8.14	145.80	6.60	4.80
K7NNZ3	X	130.47	-7.79	-5.78	128.63	-10.57	-7.69
KXDWJZ		136.45	-1.81	-1.34	137.98	-1.22	-0.89
KZKBTQ		140.08	1.82	1.35	139.30	0.10	0.07
L9BK8T		138.77	0.51	0.38	139.90	0.70	0.51
LGPBRY	*	142.53	4.28	3.17	142.71	3.51	2.55
MZDEL6		137.25	-1.01	-0.75	138.30	-0.90	-0.66
N968DV		138.56	0.31	0.23	140.64	1.44	1.05
NJ4GQR	*	139.47	1.22	0.90	142.89	3.69	2.68
NTRAZ4		138.63	0.38	0.28	139.60	0.40	0.29
NZ9CFX		137.87	-0.39	-0.29	138.73	-0.47	-0.34
PJFDVW		139.47	1.21	0.90	141.27	2.07	1.50
Q6DYXR		137.46	-0.79	-0.59	140.02	0.82	0.59
QQWC2V		137.67	-0.59	-0.44	138.33	-0.87	-0.63
RBKH4W		136.56	-1.70	-1.26	139.14	-0.06	-0.04
RK7QHT		139.13	0.88	0.65	138.93	-0.27	-0.19
RLG3AP	X	132.27	-5.99	-4.44	133.80	-5.40	-3.93
RXP7CY		139.29	1.03	0.76	137.84	-1.37	-0.99
T2P2NR		139.73	1.47	1.09	139.25	0.05	0.04
U2NQ6U		138.29	0.03	0.02	140.89	1.69	1.23
U6LPK8		135.67	-2.58	-1.92	137.93	-1.27	-0.92
UVJMHG		137.33	-0.92	-0.68	138.00	-1.20	-0.87

WebCode	Data Flag	Sample Q83 Lab Mean	Sample Q83 Diff. from Grand Mean	Sample Q83 CPV	Sample Q84 Lab Mean	Sample Q84 Diff. from Grand Mean	Sample Q84 CPV
W9XAMD		138.33	0.08	0.06	138.67	-0.53	-0.39
WWY2UF	X	97.80	-40.46	-30.01	97.93	-41.27	-30.02
X2X3RB		137.65	-0.61	-0.45	138.43	-0.78	-0.56
XAPHFE		138.44	0.19	0.14	140.18	0.98	0.71
Y9TVNN		137.33	-0.92	-0.68	137.67	-1.53	-1.12
YX9L2F	X	10.80	-127.45	-94.56	10.94	-128.26	-93.29

Summary Statistics

	Sample Q83		Sample Q84	
Grand Means	138.26	ksi	139.20	ksi
Stnd Dev Btwn Labs	1.35	ksi	1.37	ksi

Samples Q83, Q84 : 3/8-16 x 2 1/4, 3/8-16 x 2 1/2

Statistics based on 45 of 53 reporting participants

Comments on Assigned Data Flags for Test #1202

3HHWAF (X) - Data for both samples are low.

6HABHB (X) - Data for both samples are high.

C7EEK6 (X) - Data for both samples are low.

GPFVW6 (X) - Data for both samples are high.

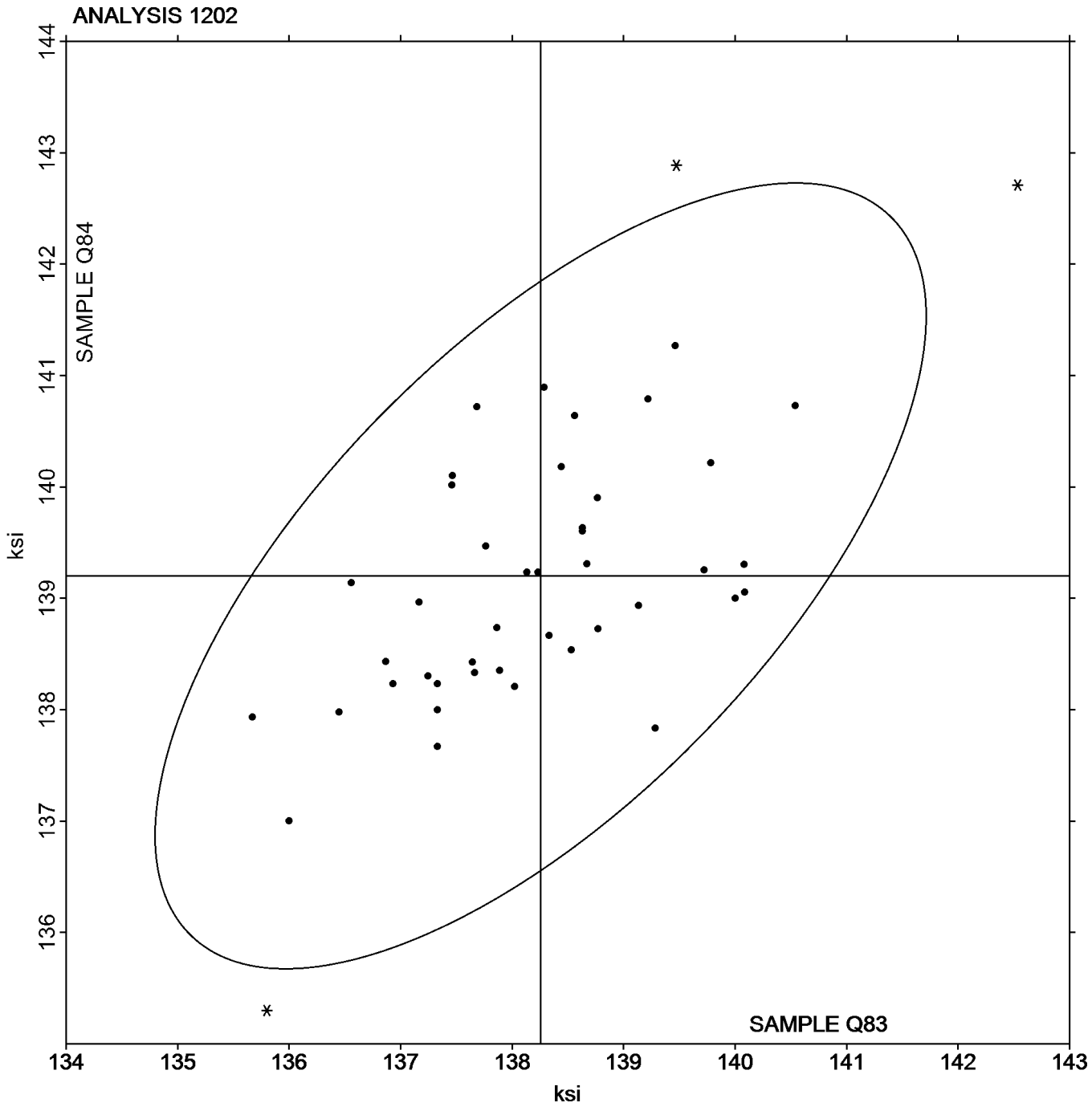
K7NNZ3 (X) - Data for both samples are low.

RLG3AP (X) - Data for both samples are low.

WWY2UF (X) - Data for both samples are low.

YX9L2F (X) - Extreme data.

SAMPLE Q83	SAMPLE Q84
138.26 ksi	139.20 ksi



		Sample B83			Sample B84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
3BNRGE		1,112	-27	-1.73	1,109	-30	-1.49
3MXH3M		1,137	-2	-0.13	1,140	2	0.10
3QC6TK		1,137	-2	-0.10	1,132	-6	-0.30
4BXDAC		1,143	4	0.28	1,143	5	0.25
6KLLBE	X	66,337	65,198	4,202.49	65,558	64,420	3,221.20
77D6WW		1,136	-3	-0.21	1,132	-7	-0.33
BAZD8T		1,130	-9	-0.57	1,139	0	0.02
C3CKHU		1,153	14	0.89	1,162	23	1.17
DMKCCZ		1,110	-29	-1.84	1,105	-34	-1.68
DYV6GL		1,141	2	0.15	1,136	-2	-0.09
DZ6HEB		1,157	18	1.14	1,147	9	0.45
EKMLG7		1,148	9	0.56	1,140	2	0.08
F9CBQV		1,167	28	1.79	1,167	28	1.42
GHT8XT		1,139	0	-0.02	1,128	-10	-0.50
J24HYH		1,137	-2	-0.12	1,130	-8	-0.42
KUV8B2		1,141	2	0.16	1,138	-1	-0.03
M6B4HY		1,129	-10	-0.63	1,140	1	0.07
QB2GHU		1,135	-4	-0.23	1,122	-17	-0.83
QNPLLK		1,135	-4	-0.23	1,128	-10	-0.52
QUWHHL	*	1,149	10	0.65	1,175	37	1.83
VU2YUU		1,131	-8	-0.50	1,136	-3	-0.14
WMUNM8		1,174	35	2.29	1,188	50	2.48
YQ9XTA		1,112	-27	-1.74	1,109	-30	-1.48
ZZQN3F		1,141	2	0.16	1,137	-1	-0.07

Summary Statistics

	Sample B83		Sample B84	
Grand Means	1,139	MPa	1,138	MPa
Stnd Dev Btwn Labs	16	MPa	20	MPa

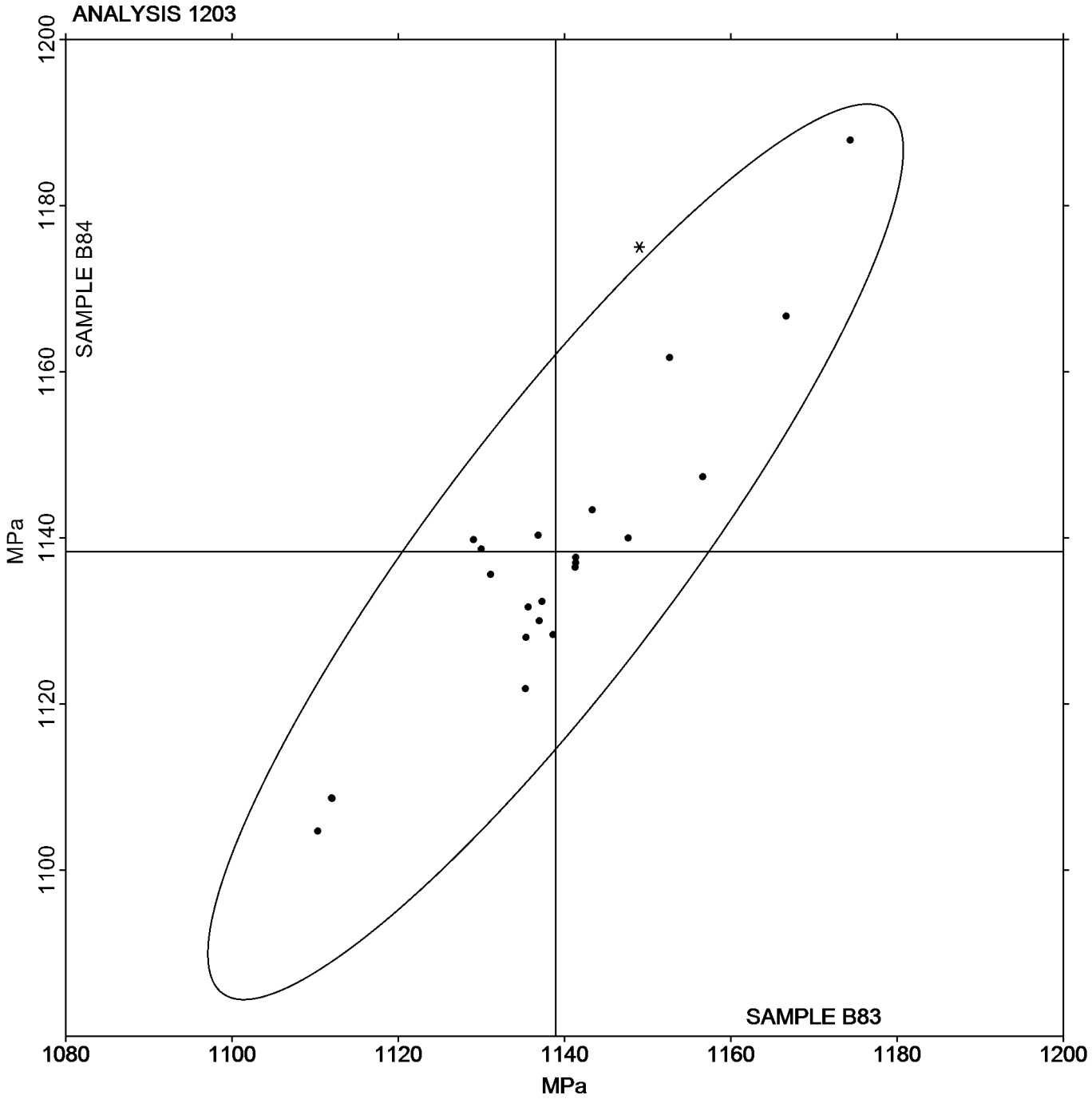
Samples B83, B84 : M-10x1.5x70, M-10x1.5x70

Statistics based on 23 of 24 reporting participants

Comments on Assigned Data Flags for Test #1203

6KLLBE (X) - Extreme data.

SAMPLE B83	SAMPLE B84
1,139 MPa	1,138 MPa



		Sample T83			Sample T84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
6R43XX		1,110	-26	-1.55	1,119	-18	-1.01
9B4P7D		1,146	10	0.60	1,146	10	0.55
AFB8MY		1,135	-1	-0.04	1,126	-10	-0.58
BAZD8T		1,123	-13	-0.79	1,126	-11	-0.59
D8KERV		1,153	17	0.98	1,161	24	1.36
DYV6GL		1,157	21	1.22	1,134	-3	-0.14
F9CBQV		1,170	34	1.99	1,167	30	1.69
GHT8XT		1,128	-8	-0.45	1,131	-5	-0.29
JKBDJE		1,127	-9	-0.55	1,147	11	0.61
KUV8B2		1,133	-3	-0.16	1,135	-2	-0.11
QB2GHU		1,132	-4	-0.22	1,133	-4	-0.22
QNPLLK		1,111	-25	-1.47	1,118	-18	-1.03
R9UX2T		1,127	-9	-0.55	1,110	-27	-1.49
TTVWUQ		1,136	0	-0.02	1,136	-1	-0.03
VHNZKK	X	65,541	64,405	3,782.44	64,707	63,571	3,574.92
WMUNM8		1,165	29	1.68	1,176	39	2.22
Y4X8N9		1,127	-9	-0.55	1,124	-13	-0.71
Z7CUK8		1,134	-2	-0.12	1,133	-4	-0.22

Summary Statistics

	Sample T83		Sample T84	
Grand Means	1,136	MPa	1,137	MPa
Stnd Dev Btwn Labs	17	MPa	18	MPa

Samples T83, T84 : M-10x1.5x70, M-10x1.5x70

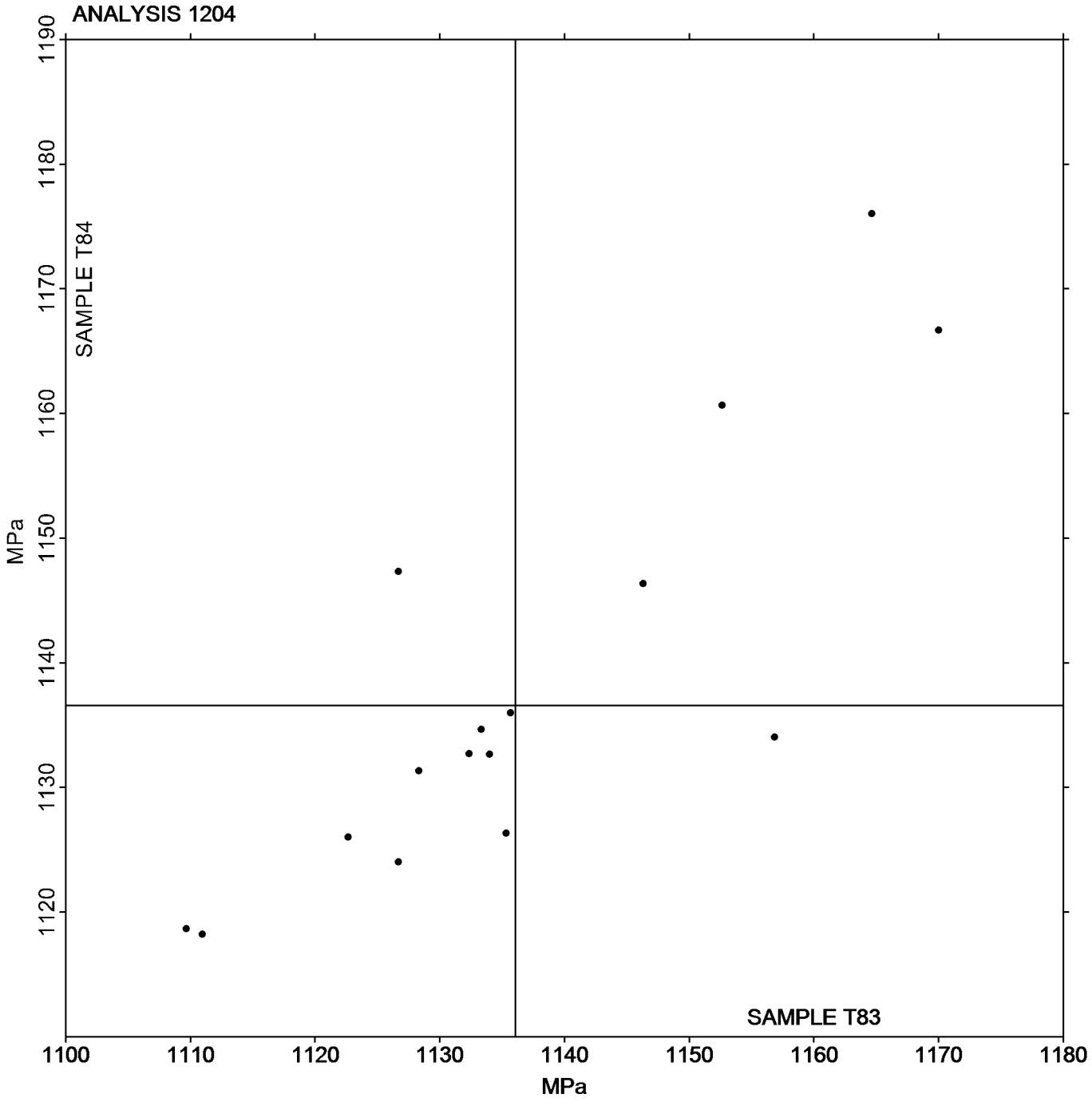
Statistics based on 17 of 18 reporting participants

Comments on Assigned Data Flags for Test #1204

VHNZKK (X) - Extreme data.

SAMPLE T83
1,136 MPa

SAMPLE T84
1,137 MPa



		Sample G83			Sample G84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2JYEMG		36.61	0.02	0.03	36.08	0.15	0.18
2VDEGN		37.27	0.68	0.96	35.22	-0.71	-0.84
338DD9		36.41	-0.19	-0.27	36.08	0.15	0.18
3BNRGE		37.14	0.55	0.78	36.32	0.39	0.46
3E2PQL		37.01	0.42	0.60	36.92	0.99	1.16
3HHWAF		37.00	0.41	0.58	36.66	0.73	0.86
3MXH3M		36.29	-0.30	-0.43	36.29	0.36	0.43
44JXV6		35.59	-1.00	-1.42	35.10	-0.83	-0.98
47MV2Q		37.88	1.29	1.83	36.88	0.95	1.12
4BXDAC		36.98	0.39	0.55	36.73	0.79	0.94
4P3ATE		35.90	-0.69	-0.99	35.40	-0.53	-0.63
6HABHB		35.42	-1.18	-1.67	34.85	-1.08	-1.27
6KLLBE		36.94	0.35	0.50	36.54	0.61	0.72
9ARPAJ		36.75	0.16	0.22	35.76	-0.17	-0.21
9B4P7D		36.56	-0.03	-0.04	34.94	-0.99	-1.16
9TZPZC		36.33	-0.27	-0.38	35.81	-0.12	-0.15
9YQREA		36.31	-0.28	-0.40	34.77	-1.16	-1.37
A4XJJM	X	32.62	-3.97	-5.66	31.46	-4.47	-5.27
AFB8MY	*	38.37	1.77	2.53	36.69	0.76	0.90
AUTTDJ		36.26	-0.34	-0.48	36.43	0.49	0.58
BAZD8T		37.64	1.05	1.50	37.25	1.32	1.56
BQT4AG		36.77	0.18	0.25	36.38	0.45	0.53
C7EEK6		36.03	-0.57	-0.81	35.73	-0.21	-0.24
CDGZHR		36.76	0.17	0.24	36.05	0.12	0.14
CZU93D		36.32	-0.27	-0.39	35.97	0.04	0.05
FR3P3Y		36.56	-0.03	-0.04	36.06	0.13	0.16
FXQWGK	*	35.78	-0.81	-1.15	33.71	-2.22	-2.62
GC84ZY		37.01	0.41	0.59	36.69	0.76	0.89
GHT8XT		36.05	-0.54	-0.77	35.19	-0.74	-0.87
GLU8XQ	X	37.17	0.58	0.82	34.01	-1.92	-2.26
GPFVW6	X	36.17	-0.42	-0.60	33.06	-2.87	-3.38
GXQC7Q		36.19	-0.40	-0.57	35.81	-0.12	-0.14
J24HYH		35.83	-0.76	-1.08	36.32	0.39	0.46
JBPC46		37.19	0.59	0.85	35.93	-0.01	-0.01
L9BK8T	*	34.76	-1.84	-2.61	34.41	-1.52	-1.79
LGPBRY		37.22	0.63	0.89	36.62	0.69	0.81
MZDEL6		37.57	0.98	1.39	36.56	0.63	0.75
N968DV		36.81	0.22	0.31	35.54	-0.39	-0.46
NZ9CFX		37.49	0.89	1.27	36.59	0.66	0.78
Q6DYXR	*	35.17	-1.42	-2.03	35.96	0.03	0.04
QB2GHU		36.38	-0.22	-0.31	35.94	0.01	0.02
QNPLLK		37.66	1.06	1.51	36.98	1.05	1.24
QQWC2V		36.24	-0.36	-0.51	35.57	-0.36	-0.43
QWHFLJ		36.41	-0.18	-0.26	35.58	-0.35	-0.41
RBKH4W	*	36.83	0.23	0.33	34.51	-1.42	-1.67
RK7QHT		36.29	-0.31	-0.43	35.98	0.04	0.05
RXC3TL		36.94	0.34	0.49	36.30	0.37	0.44

		Sample G83			Sample G84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
RXWGNQ	*	36.19	-0.41	-0.58	33.74	-2.19	-2.58
RY34V3		35.93	-0.66	-0.94	34.33	-1.61	-1.89
T2P2NR		36.41	-0.18	-0.26	35.84	-0.09	-0.11
TTVWUQ		36.57	-0.02	-0.03	36.34	0.41	0.48
TVFH8T		36.58	-0.01	-0.02	36.33	0.39	0.47
U2NQ6U		36.13	-0.46	-0.66	36.09	0.16	0.19
VCZNVC		36.72	0.13	0.18	36.65	0.72	0.85
VU2YUU		37.70	1.11	1.58	37.89	1.96	2.31
WWY2UF		37.39	0.80	1.14	36.51	0.58	0.68
Y4X8N9		37.04	0.45	0.64	36.61	0.68	0.80
YQ9XTA		36.53	-0.07	-0.10	36.76	0.83	0.97
YX9L2F		37.11	0.52	0.74	35.84	-0.09	-0.10
ZW9TYM		35.13	-1.47	-2.09	34.48	-1.45	-1.72
ZZQN3F		36.03	-0.56	-0.80	35.47	-0.46	-0.54

Summary Statistics

	Sample G83		Sample G84	
Grand Means	36.59	HRC	35.93	HRC
Stnd Dev Btwn Labs	0.70	HRC	0.85	HRC

Samples G83, G84 : 1/2-20 x 2 1/4, 1/2-20 x 2 1/2

Statistics based on 58 of 61 reporting participants

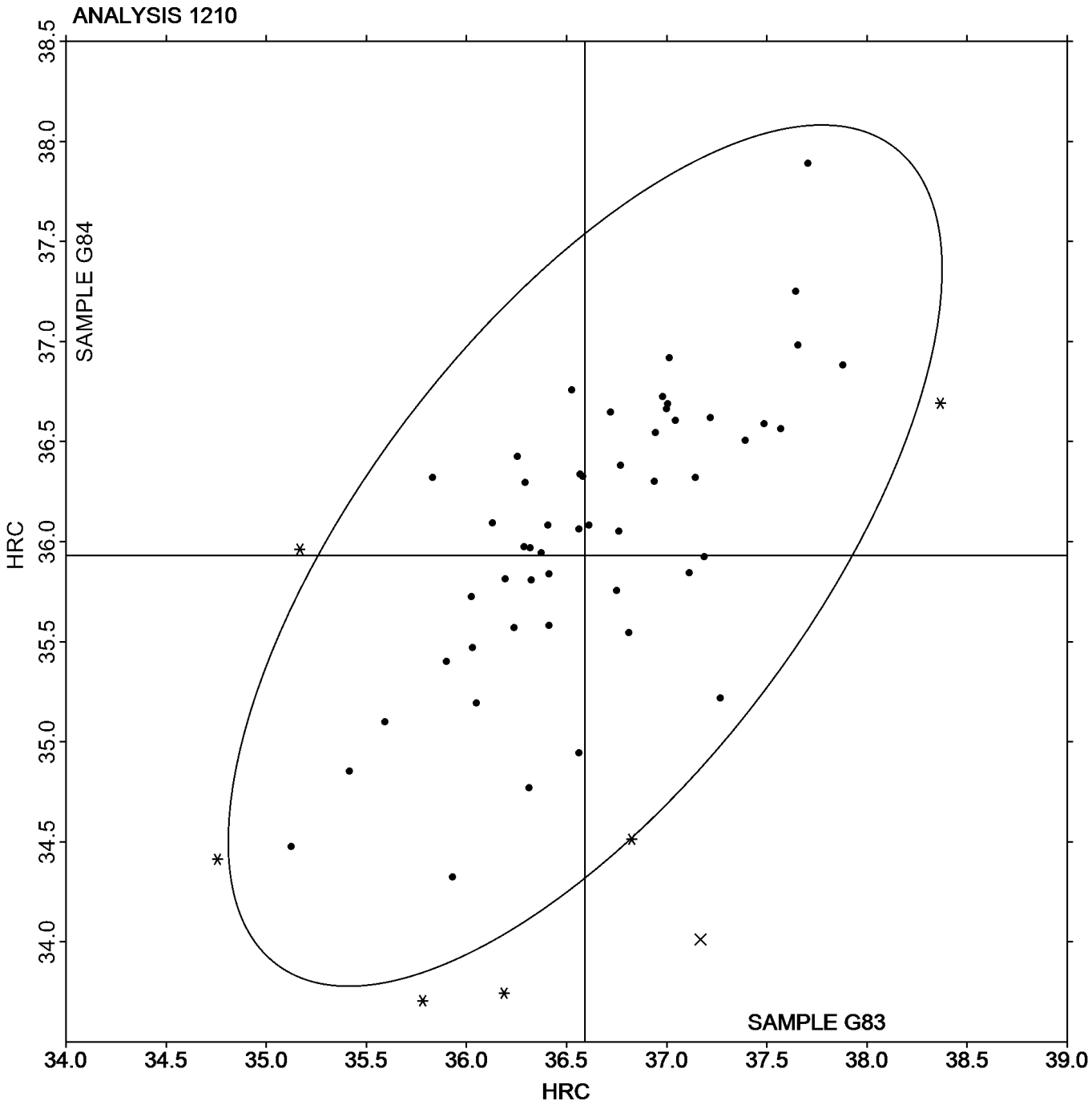
Comments on Assigned Data Flags for Test #1210

A4XJJM (X) - Data for both samples are low. Inconsistent within the determinations of both samples.

GLU8XQ (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample G84.

GPFVW6 (X) - Data for sample G84 are low.

SAMPLE G83	SAMPLE G84
36.59 HRC	35.93 HRC



		Sample V83			Sample V84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
36UMEG		370.04	6.90	0.97	360.66	2.40	0.48
3P4HBU		367.50	4.36	0.61	361.50	3.25	0.64
44JXV6		369.88	6.74	0.95	360.94	2.68	0.53
4AN2WG		365.11	1.97	0.28	359.67	1.41	0.28
77D6WW		363.63	0.49	0.07	359.38	1.12	0.22
7CNQWB		361.27	-1.87	-0.26	358.02	-0.24	-0.05
8L8JMX		361.31	-1.83	-0.26	357.44	-0.82	-0.16
BQT4AG		361.75	-1.39	-0.19	353.81	-4.44	-0.88
D8KERV		354.06	-9.08	-1.27	354.00	-4.25	-0.84
DYV6GL		360.19	-2.95	-0.41	354.50	-3.75	-0.74
F9CBQV		360.13	-3.01	-0.42	358.81	0.56	0.11
KPHJEB	*	378.41	15.27	2.14	372.54	14.29	2.83
L37AVN		356.55	-6.58	-0.92	350.76	-7.50	-1.48
LPFWTQ		370.29	7.16	1.00	360.08	1.82	0.36
M6B4HY		348.63	-14.51	-2.04	353.56	-4.69	-0.93
N968DV		369.88	6.74	0.95	366.63	8.37	1.66
NNLFPF		362.31	-0.83	-0.12	356.75	-1.50	-0.30
PADZVW		372.19	9.05	1.27	358.31	0.06	0.01
QNPLLK		358.75	-4.39	-0.62	348.56	-9.69	-1.92
RG4H34		350.94	-12.20	-1.71	356.63	-1.63	-0.32
T2P2NR		357.00	-6.14	-0.86	356.06	-2.19	-0.43
WZJNTU		366.31	3.17	0.45	363.00	4.75	0.94
Y9TVNN		366.06	2.92	0.41	358.25	0.00	0.00

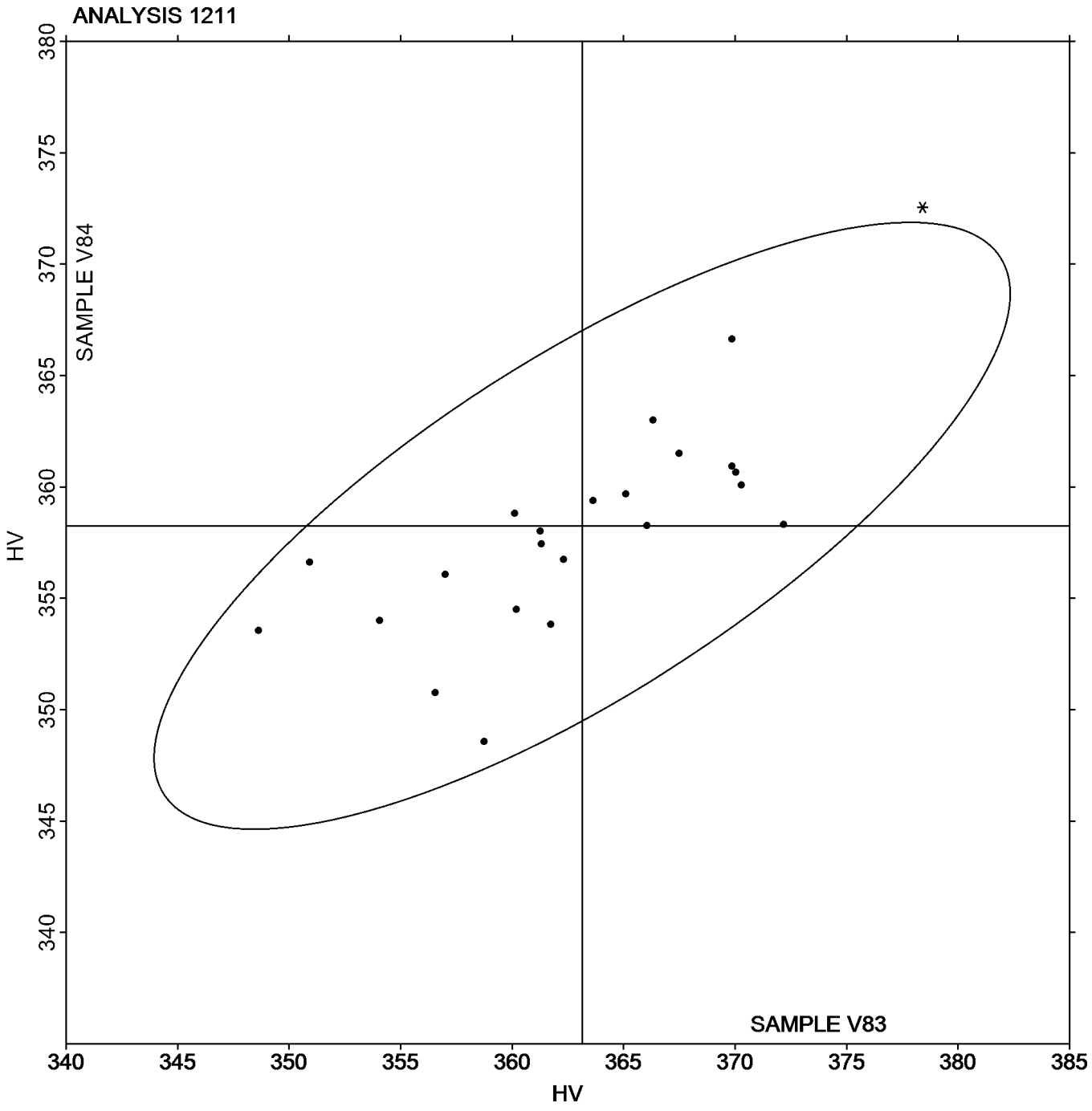
Summary Statistics

	Sample V83		Sample V84	
Grand Means	363.14	HV	358.25	HV
Stnd Dev Btwn Labs	7.12	HV	5.05	HV

Samples V83, V84 : 1/2-20 x 2 1/4, 1/2-20 x 2 1/2

Statistics based on 23 of 23 reporting participants

SAMPLE V83	SAMPLE V84
363.14 HV	358.25 HV



		Sample Z83			Sample Z84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
3E2PQL		19,100	443	1.22	18,867	486	1.30
3HHWAF	X	85.33	-18,571	-51.12	86.00	-18,295	-48.97
4BXDAC		18,718	61	0.17	18,566	185	0.49
4V47JL	X	12,854	-5,802	-15.97	12,689	-5,692	-15.24
8LLJPE		18,267	-390	-1.07	17,900	-481	-1.29
9ARPAJ		18,220	-437	-1.20	18,035	-346	-0.93
BEWCVJ		19,268	611	1.68	18,887	506	1.35
C7EEK6		18,347	-309	-0.85	18,388	8	0.02
FXQWGK		18,799	142	0.39	18,465	84	0.23
GPFVW6		18,935	278	0.77	18,756	376	1.01
LGPBRY		19,039	382	1.05	18,430	50	0.13
NZ9CFX		18,281	-376	-1.03	17,901	-480	-1.28
T2P2NR		18,229	-428	-1.18	17,760	-621	-1.66
WWY2UF		18,706	50	0.14	18,543	163	0.44
X4GW9N		18,628	-29	-0.08	18,452	71	0.19

Summary Statistics

	Sample Z83		Sample Z84	
Grand Means	18,657	lb	18,381	lb
Stnd Dev Btwn Labs	363	lb	374	lb

Samples Z83, Z84 : 3/8-16 x 2 1/4, 3/8-16 x 2 1/2

Statistics based on 13 of 15 reporting participants

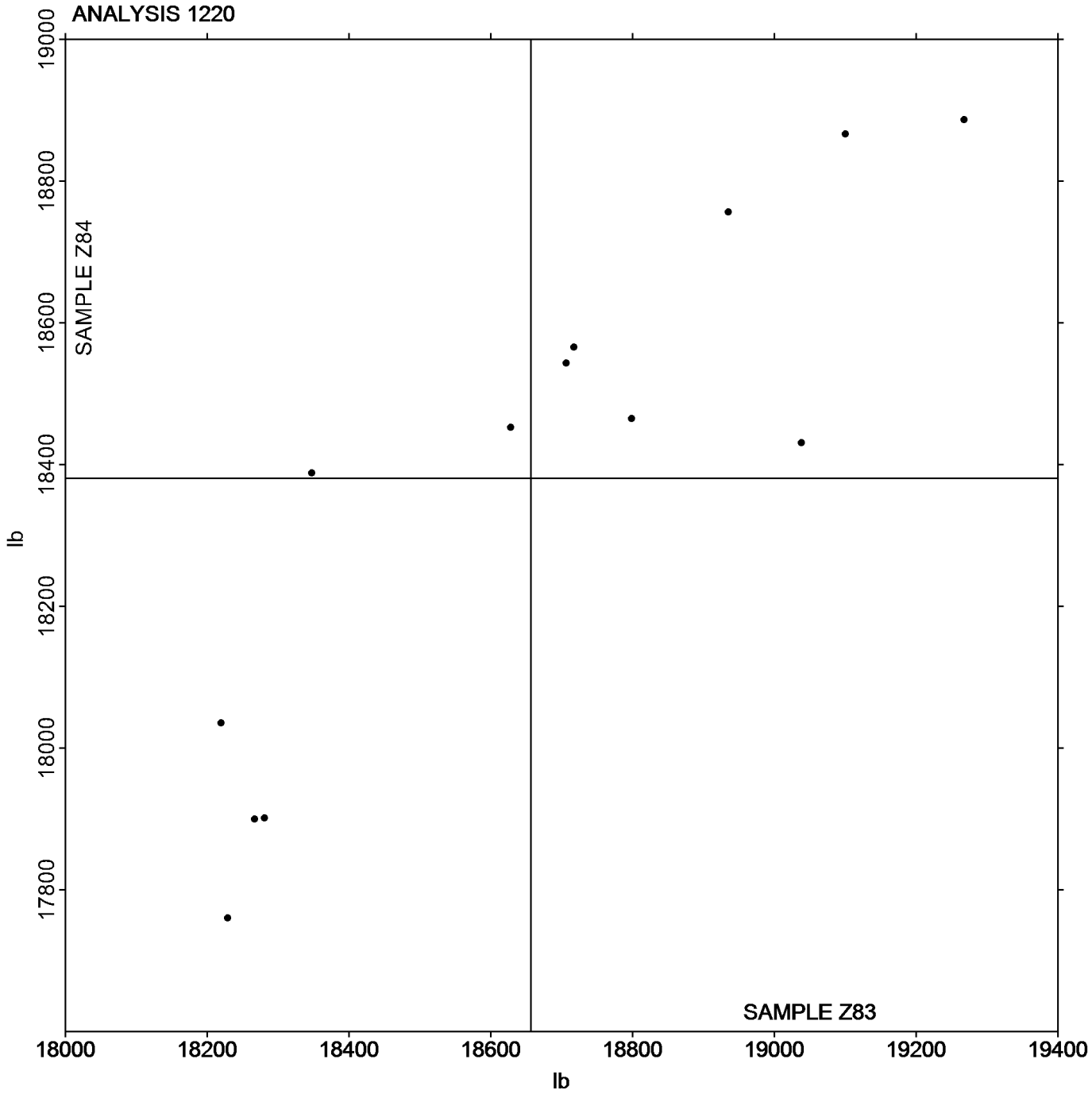
Comments on Assigned Data Flags for Test #1220

3HHWAF (X) - Extreme data.

4V47JL (X) - Data for both samples are low.

SAMPLE Z83
18,657 lb

SAMPLE Z84
18,381 lb



		Sample E83			Sample E84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
28AUDX		53.54	0.21	0.46	60.42	0.25	0.51
2HPLYL		53.80	0.47	1.03	60.60	0.43	0.88
2T9DAG		53.24	-0.09	-0.20	60.20	0.03	0.06
2VDEGN		54.22	0.89	1.95	61.00	0.83	1.70
2YTQBK		52.80	-0.53	-1.16	60.02	-0.15	-0.30
36UMEG	X	51.76	-1.57	-3.44	58.44	-1.73	-3.53
3AVQLN		53.42	0.09	0.20	60.08	-0.09	-0.18
3BNRGE		53.44	0.11	0.24	60.34	0.17	0.35
3CDNXZ	X	50.94	-2.39	-5.24	58.08	-2.09	-4.27
3DTC9K		53.32	-0.01	-0.02	59.97	-0.20	-0.41
3G9DJD		52.92	-0.41	-0.90	59.78	-0.39	-0.79
3QERCK		53.12	-0.21	-0.46	59.78	-0.39	-0.79
44JXV6		53.18	-0.15	-0.33	59.88	-0.29	-0.59
47PQZH		53.18	-0.15	-0.33	59.84	-0.33	-0.67
4BXDAC		53.52	0.19	0.41	60.32	0.15	0.31
4HGJ4Y		53.07	-0.26	-0.56	59.92	-0.25	-0.51
4P28V3		54.20	0.87	1.90	60.98	0.81	1.66
4P3ATE		53.08	-0.25	-0.55	60.04	-0.13	-0.26
4V47JL		54.08	0.75	1.64	60.66	0.49	1.00
4VKJMN		52.94	-0.39	-0.86	59.88	-0.29	-0.59
4ZCNFT		54.20	0.87	1.90	61.30	1.13	2.31
672CY6		53.10	-0.23	-0.51	60.34	0.17	0.35
6U3URB		53.22	-0.11	-0.24	59.58	-0.59	-1.20
6Z9L3T	*	52.66	-0.67	-1.47	58.90	-1.27	-2.59
7KYFRF		53.70	0.37	0.81	60.56	0.39	0.80
8DBPPY	X	51.20	-2.13	-4.67	60.30	0.13	0.27
8LLJPE		53.24	-0.09	-0.20	59.92	-0.25	-0.51
A78R4L		53.08	-0.25	-0.55	59.88	-0.29	-0.59
ABXUXR		53.94	0.61	1.33	60.86	0.69	1.41
ADQZMB		53.34	0.01	0.02	60.22	0.05	0.11
BAZD8T		54.28	0.95	2.08	60.80	0.63	1.29
BC9LGD		52.68	-0.65	-1.43	59.30	-0.87	-1.77
BEWCVJ		53.12	-0.21	-0.46	59.86	-0.31	-0.63
BX7CYT		52.78	-0.55	-1.21	59.56	-0.61	-1.24
BYKWPH		53.34	0.01	0.02	60.14	-0.03	-0.06
C7GGGH		53.76	0.43	0.94	60.48	0.31	0.64
CDGZHR		53.64	0.31	0.68	60.52	0.35	0.72
CNHVPH		52.78	-0.55	-1.20	59.89	-0.28	-0.57
CZQNB4		52.74	-0.59	-1.29	59.86	-0.31	-0.63
E4MYAZ		53.42	0.09	0.20	60.58	0.41	0.84
E842ZJ		53.06	-0.27	-0.59	59.76	-0.41	-0.83
ECGAGB		53.50	0.17	0.37	60.60	0.43	0.88
EMGULN		53.36	0.03	0.06	60.26	0.09	0.19
F2BCVY	*	52.00	-1.33	-2.92	59.00	-1.17	-2.39
F34KBP		53.02	-0.31	-0.68	60.12	-0.05	-0.10
FA7LGB		53.50	0.17	0.37	59.84	-0.33	-0.67
FKZ8D9		53.74	0.41	0.90	60.50	0.33	0.68

		Sample E83			Sample E84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
FLEJ9R		52.90	-0.43	-0.94	59.80	-0.37	-0.75
FRNPYW		54.02	0.69	1.51	60.78	0.61	1.25
GANV76	X	53.50	0.17	0.37	58.90	-1.27	-2.59
GECM88		54.18	0.85	1.86	61.24	1.07	2.19
GFML7M		53.24	-0.09	-0.20	60.18	0.01	0.02
GLUFF3		53.08	-0.25	-0.55	59.46	-0.71	-1.45
HAZLGE		52.54	-0.79	-1.73	59.76	-0.41	-0.83
HQ4QTC	X	52.40	-0.93	-2.04	57.00	-3.17	-6.47
HVDX8V		53.68	0.35	0.77	60.30	0.13	0.27
J2FHUQ		53.00	-0.33	-0.72	60.00	-0.17	-0.34
JKBDJE		53.58	0.25	0.55	60.64	0.47	0.96
JXZRNW		53.78	0.45	0.99	60.41	0.25	0.50
K7NNZ3		52.70	-0.63	-1.38	59.80	-0.37	-0.75
L4G6HF		53.52	0.19	0.41	60.54	0.37	0.76
LJVDHJ		53.72	0.39	0.85	60.74	0.57	1.17
LMEFFG	*	53.24	-0.09	-0.20	60.74	0.57	1.17
LPFWTQ		53.22	-0.11	-0.24	59.98	-0.19	-0.39
LPWPEF		53.26	-0.07	-0.16	59.98	-0.19	-0.39
LZFY6V		53.62	0.29	0.63	60.62	0.45	0.92
M28GFV		52.60	-0.73	-1.60	59.40	-0.77	-1.57
MVZ66F		52.94	-0.39	-0.86	59.80	-0.37	-0.75
MYZ7JR		52.42	-0.91	-2.00	59.22	-0.95	-1.94
N968DV		53.64	0.31	0.68	60.72	0.55	1.13
NAFLTX		52.92	-0.41	-0.90	59.96	-0.21	-0.43
NGVALD		53.20	-0.13	-0.29	60.12	-0.05	-0.10
NTRAZ4		53.38	0.05	0.11	59.66	-0.51	-1.04
NZ9CFX		53.60	0.27	0.59	60.44	0.27	0.55
P63ZH6		53.14	-0.19	-0.42	60.02	-0.15	-0.30
P8MYRT		53.45	0.12	0.27	60.70	0.54	1.09
PADZVW		53.30	-0.03	-0.07	60.14	-0.03	-0.06
PHLRZK		53.84	0.51	1.12	60.18	0.01	0.02
Q4Z3U8		53.00	-0.33	-0.72	59.74	-0.43	-0.88
Q8K89W		53.30	-0.03	-0.07	60.10	-0.07	-0.14
QG7TJF		53.18	-0.15	-0.33	59.98	-0.19	-0.39
R778MM		53.13	-0.20	-0.44	59.83	-0.34	-0.70
RBKH4W		53.14	-0.19	-0.42	59.92	-0.25	-0.51
RCAMZW	*	54.46	1.13	2.47	61.36	1.19	2.43
RXP7CY		52.98	-0.35	-0.77	59.86	-0.31	-0.63
T7YRX8		53.28	-0.05	-0.11	59.68	-0.49	-1.00
T9LDPA		53.53	0.20	0.45	60.63	0.46	0.94
TH9E2D	*	53.46	0.13	0.28	59.60	-0.57	-1.16
U3DVZL		53.30	-0.03	-0.07	59.58	-0.59	-1.20
UKF34A		53.98	0.65	1.42	60.76	0.59	1.21
UQ7ATA		52.78	-0.55	-1.21	59.24	-0.93	-1.90
UT8KK4		54.04	0.71	1.55	61.04	0.87	1.78
V3DCCP		53.34	0.01	0.02	60.34	0.17	0.35
VFFN3H		53.42	0.09	0.20	60.00	-0.17	-0.34

		Sample E83			Sample E84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
VT6K72		53.52	0.19	0.41	60.24	0.07	0.15
WLM2FU		53.62	0.29	0.63	60.60	0.43	0.88
WQHVBA	*	52.32	-1.01	-2.21	59.56	-0.61	-1.24
X2X3RB		53.70	0.37	0.81	60.86	0.69	1.41
XVNTF9		53.42	0.09	0.20	60.26	0.09	0.19
Y3FQEV		52.40	-0.93	-2.04	59.60	-0.57	-1.16
Y3NNX8		53.70	0.37	0.81	60.56	0.39	0.80
YDJY4T		53.24	-0.09	-0.20	60.26	0.09	0.19
YZXWT9	X	54.70	1.37	3.00	60.50	0.33	0.68
ZB8GKM		53.88	0.55	1.20	60.70	0.53	1.09
ZC6WQT		53.58	0.25	0.55	60.28	0.11	0.23
ZDWRFM		53.42	0.09	0.20	60.24	0.07	0.15
ZGXULB		53.96	0.63	1.38	60.86	0.69	1.41
ZJM6GB		53.08	-0.25	-0.55	60.08	-0.09	-0.18
ZKCF84	X	51.72	-1.61	-3.53	58.90	-1.27	-2.59
ZNFURT		53.14	-0.19	-0.42	60.02	-0.15	-0.30
ZZC7CG		53.10	-0.23	-0.51	60.08	-0.09	-0.18

Summary Statistics

	Sample E83		Sample E84	
Grand Means	53.33	HRC	60.17	HRC
Stnd Dev Btwn Labs	0.46	HRC	0.49	HRC

Samples E83, E84 : Steel, Steel

Statistics based on 104 of 111 reporting participants

Comments on Assigned Data Flags for Test #1301

36UMEG (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.

3CDNXZ (X) - Data for both samples are low. Possible Systematic Error.

8DBPPY (X) - Data for sample E83 are low. Inconsistent within the determinations of sample E83.

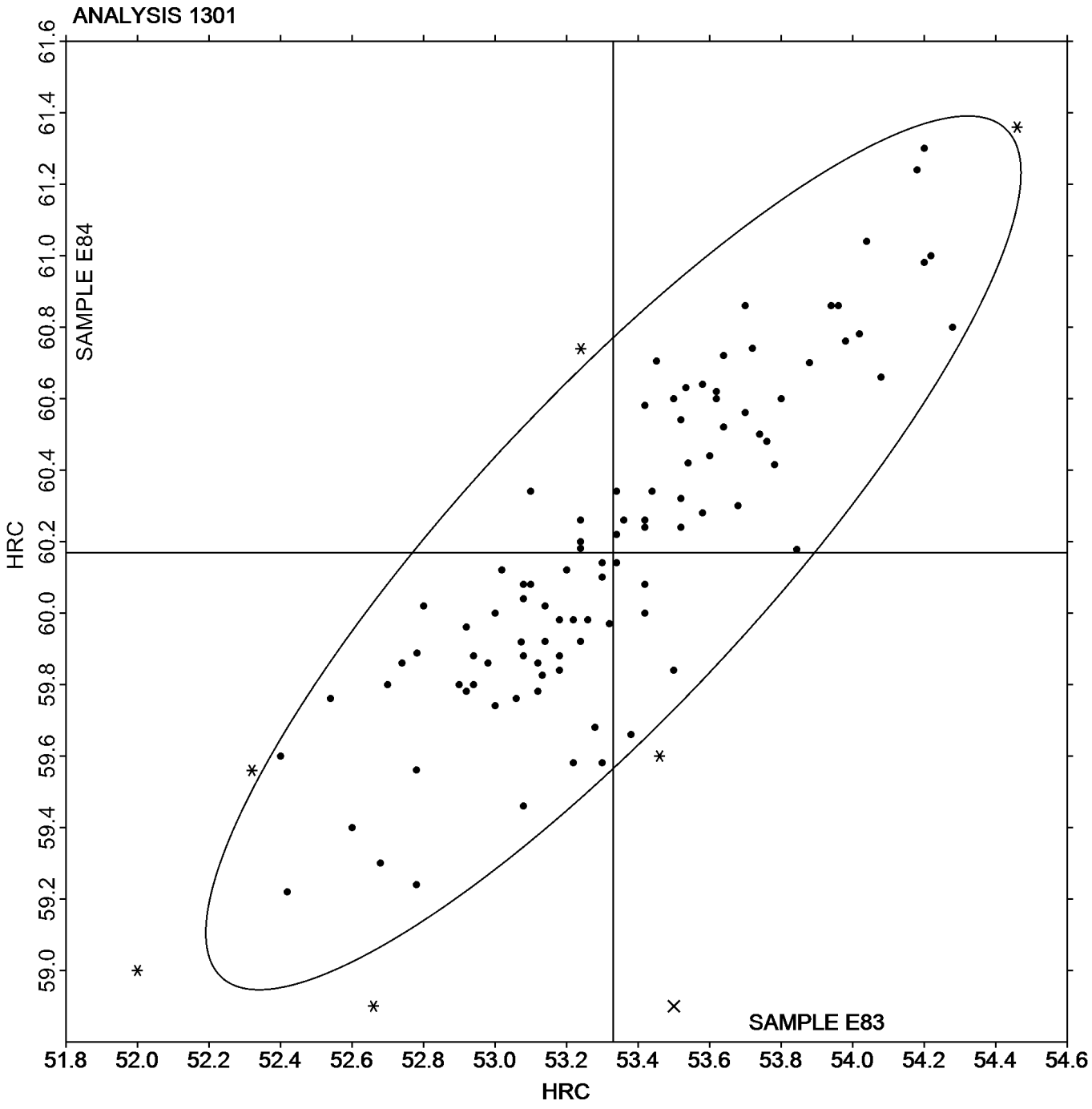
GANV76 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.

HQ4QTC (X) - Data for sample E84 are low. Inconsistent within the determinations of sample E83.

YZXWT9 (X) - Data for sample E83 are high. Inconsistent within the determinations of sample E84.

ZKCF84 (X) - Data for sample E83 are low.

SAMPLE E83	SAMPLE E84
53.33 HRC	60.17 HRC



		Sample E83			Sample E84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HRC76		52.22	-0.28	-0.53	58.86	-0.50	-0.80
2YUBRD		52.26	-0.24	-0.46	59.58	0.22	0.35
3DNPKY		51.45	-1.06	-1.99	58.70	-0.66	-1.06
3HXD69		51.80	-0.70	-1.33	58.90	-0.46	-0.74
3R8FEU		52.66	0.16	0.30	60.00	0.64	1.02
44JXV6		52.54	0.04	0.07	59.76	0.40	0.64
47MV2Q		51.98	-0.52	-0.99	58.96	-0.40	-0.64
6KHZY8		52.98	0.48	0.90	60.26	0.90	1.44
7TUTW4	X	52.62	0.12	0.22	58.02	-1.34	-2.14
84ARUP		51.70	-0.80	-1.51	59.00	-0.36	-0.58
8FKJLY		52.30	-0.20	-0.38	59.00	-0.36	-0.58
8L8JMX		52.74	0.24	0.45	60.00	0.64	1.02
99ZUMB		52.64	0.14	0.26	59.48	0.12	0.19
B69JH2		52.18	-0.32	-0.61	58.66	-0.70	-1.12
BWCNFX		53.40	0.90	1.70	60.30	0.94	1.50
C7EEK6		51.96	-0.54	-1.02	59.12	-0.24	-0.39
CJKCP6		52.36	-0.14	-0.27	59.50	0.14	0.22
DZ6HEB		52.60	0.10	0.19	58.68	-0.68	-1.09
EZJW9H		52.14	-0.36	-0.68	59.14	-0.22	-0.35
FJUK7V		52.24	-0.26	-0.49	58.93	-0.43	-0.69
FLEJ9R		52.00	-0.50	-0.95	58.80	-0.56	-0.90
FNPYLB		51.80	-0.70	-1.33	58.64	-0.72	-1.15
FQT6CW		52.34	-0.16	-0.30	59.36	0.00	0.00
FR3P3Y		52.60	0.10	0.19	59.40	0.04	0.06
GCTMXJ	X	53.26	0.76	1.43	58.10	-1.26	-2.02
GNZ4QL		52.44	-0.06	-0.12	58.46	-0.90	-1.44
HYZVXR		52.82	0.32	0.60	59.76	0.40	0.64
J893U8		53.08	0.58	1.09	59.54	0.18	0.29
JYBBNY		52.18	-0.32	-0.61	58.94	-0.42	-0.67
K794XY	*	53.94	1.44	2.72	60.84	1.48	2.37
KPHJEB		52.24	-0.26	-0.49	59.30	-0.06	-0.10
KPJQQY		52.88	0.38	0.72	59.22	-0.14	-0.23
LQDRBG		53.13	0.62	1.18	59.53	0.16	0.26
LWDNZZ		52.30	-0.20	-0.38	59.00	-0.36	-0.58
MRJ9R4		52.90	0.40	0.75	59.72	0.36	0.57
MWVTLQ		52.46	-0.04	-0.08	59.40	0.04	0.06
NH9874		53.02	0.52	0.98	59.76	0.40	0.64
NL9UTY	*	51.18	-1.32	-2.50	57.52	-1.84	-2.94
PGUUTD	X	52.40	-0.10	-0.19	57.64	-1.72	-2.75
PW9VP4		51.78	-0.72	-1.36	59.08	-0.28	-0.45
RG4H34		52.10	-0.40	-0.76	59.04	-0.32	-0.51
RLG3AP		53.12	0.62	1.17	60.16	0.80	1.28
RPGAW9		52.34	-0.16	-0.30	59.34	-0.02	-0.03
RQQL4C		51.56	-0.94	-1.78	58.32	-1.04	-1.66
RY34V3	X	52.42	-0.08	-0.15	57.20	-2.16	-3.46
TPFJU4		53.30	0.80	1.51	59.40	0.04	0.06
TVGZLQ		52.46	-0.04	-0.08	58.84	-0.52	-0.83

		Sample E83			Sample E84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
U6LPK8		52.68	0.18	0.34	59.98	0.62	0.98
U8BJDM	*	52.56	0.06	0.11	58.38	-0.98	-1.57
UG9X2L		52.82	0.32	0.60	59.64	0.28	0.45
UQ6M64		52.74	0.24	0.45	59.66	0.30	0.48
UTR9W7		52.40	-0.10	-0.19	59.30	-0.06	-0.10
UVJMHG		53.00	0.50	0.94	60.00	0.64	1.02
VBML24		53.26	0.76	1.43	60.64	1.28	2.05
VZ4QMJ		52.46	-0.04	-0.08	59.64	0.28	0.45
WJTH4V		52.50	0.00	0.00	59.70	0.34	0.54
X3YCBR		53.31	0.81	1.54	59.95	0.59	0.94
XEJL27		52.68	0.18	0.34	60.08	0.72	1.15
XGLFYB		53.12	0.62	1.17	60.32	0.96	1.53
XV6XX7		52.43	-0.08	-0.14	58.72	-0.64	-1.02

Summary Statistics

	Sample E83		Sample E84	
Grand Means	52.50	HRC	59.36	HRC
Stnd Dev Btwn Labs	0.53	HRC	0.63	HRC

Samples E83, E84 : Steel, Steel

Statistics based on 56 of 60 reporting participants

Comments on Assigned Data Flags for Test #1303

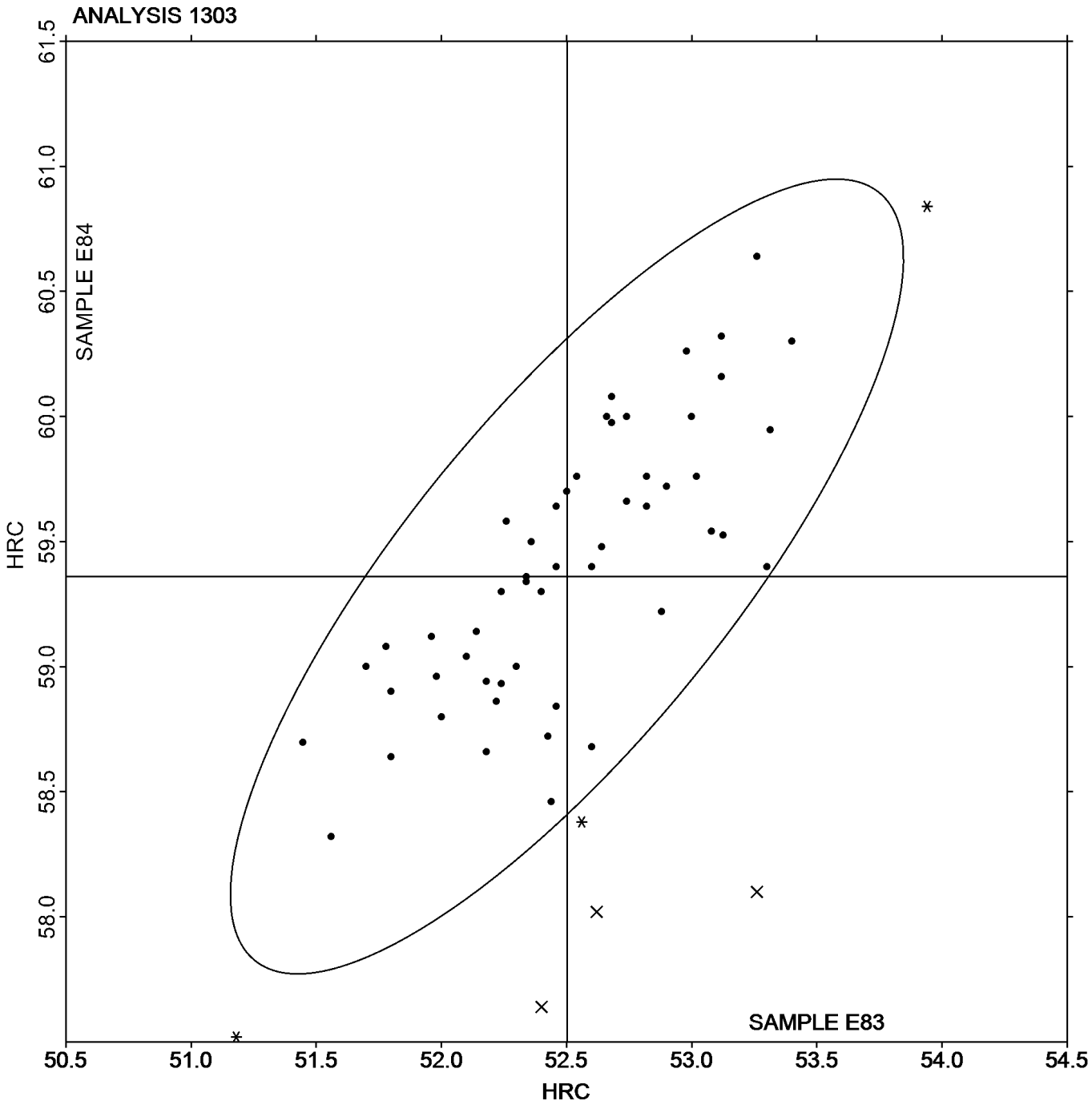
7TUTW4 (X) - Inconsistent in testing between samples.

GCTMXJ (X) - Inconsistent in testing between samples.

PGUUTD (X) - Data for sample E84 are low.

RY34V3 (X) - Data for sample E84 are low.

SAMPLE E83	SAMPLE E84
52.50 HRC	59.36 HRC



		Sample E83			Sample E84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2VDEGN		70.02	-0.26	-0.45	75.26	-0.58	-0.83
2YUBRD		69.60	-0.68	-1.16	74.80	-1.04	-1.48
3CDNXZ		71.06	0.78	1.31	77.34	1.50	2.15
3HHWAF		70.08	-0.20	-0.34	74.96	-0.88	-1.26
44JXV6		70.82	0.54	0.91	76.88	1.04	1.49
4BXDAC		71.26	0.98	1.65	77.28	1.44	2.06
4FCEK7		70.44	0.16	0.26	75.72	-0.12	-0.17
4P28V3		70.72	0.44	0.74	75.72	-0.12	-0.17
4P3ATE		70.48	0.20	0.33	75.80	-0.04	-0.05
4QBRM4		70.58	0.30	0.50	76.44	0.60	0.86
4V47JL	X	71.12	0.84	1.42	74.98	-0.86	-1.23
672CY6		69.94	-0.34	-0.58	75.36	-0.48	-0.68
6KHZY8		71.08	0.80	1.35	76.74	0.90	1.29
6KLLBE		70.10	-0.18	-0.31	76.18	0.34	0.49
9TZPZC		69.12	-1.16	-1.97	74.76	-1.08	-1.54
A78R4L		69.72	-0.56	-0.95	75.50	-0.34	-0.48
ABXUXR		71.00	0.72	1.21	76.54	0.70	1.01
BAZD8T		71.20	0.92	1.55	76.76	0.92	1.32
BWCNFX		70.04	-0.24	-0.41	75.62	-0.22	-0.31
C7GGGH		71.20	0.92	1.55	76.74	0.90	1.29
CDGZHR	*	69.34	-0.94	-1.60	75.82	-0.02	-0.02
CJKCP6		71.18	0.90	1.52	76.54	0.70	1.01
E4MYAZ		70.16	-0.12	-0.21	75.44	-0.40	-0.57
FA7LGB		70.40	0.12	0.20	75.36	-0.48	-0.68
G7JUWD	X	69.18	-1.10	-1.87	73.20	-2.64	-3.77
GFML7M		69.52	-0.76	-1.29	75.22	-0.62	-0.88
HAZLGE		69.48	-0.80	-1.36	74.28	-1.56	-2.23
J24HYH		69.84	-0.44	-0.75	75.76	-0.08	-0.11
JXZRNW		70.48	0.20	0.34	75.98	0.14	0.20
KT2JR7	X	68.68	-1.60	-2.71	75.42	-0.42	-0.60
LPWPEF		69.96	-0.32	-0.55	75.72	-0.12	-0.17
MNJDEQ		70.18	-0.10	-0.18	75.48	-0.36	-0.51
MVZ66F		69.50	-0.78	-1.33	74.82	-1.02	-1.46
N2LGZW		69.52	-0.76	-1.29	75.12	-0.72	-1.03
NLQ4GU		69.38	-0.90	-1.53	75.06	-0.78	-1.11
NZ9CFX		69.80	-0.48	-0.82	75.66	-0.18	-0.25
P8MYRT		70.25	-0.04	-0.06	76.19	0.36	0.51
QMV7MP		70.98	0.70	1.18	76.66	0.82	1.18
REHLUD		70.44	0.16	0.26	75.52	-0.32	-0.45
RLG3AP		70.40	0.12	0.20	75.70	-0.14	-0.20
T9LDPA		70.74	0.45	0.77	76.21	0.37	0.53
U3DVZL		70.32	0.04	0.06	75.10	-0.74	-1.05
UQ7ATA		70.96	0.68	1.14	75.94	0.10	0.15
V3DCCP		70.88	0.60	1.01	76.50	0.66	0.95
V6ZVDM		70.20	-0.08	-0.14	75.20	-0.64	-0.91
VFFN3H		70.12	-0.16	-0.28	76.10	0.26	0.38
WLM2FU		70.56	0.28	0.47	76.12	0.28	0.40

WebCode	Data Flag	Sample E83 Lab Mean	Sample E83 Diff. from Grand Mean	Sample E83 CPV	Sample E84 Lab Mean	Sample E84 Diff. from Grand Mean	Sample E84 CPV
X2X3RB		70.78	0.50	0.84	76.84	1.00	1.43
XVNTF9		70.42	0.14	0.23	75.84	0.00	0.00
YQ9XTA		71.10	0.82	1.38	76.72	0.88	1.26
YZXWT9		70.00	-0.28	-0.48	75.90	0.06	0.09
ZB8GKM		69.74	-0.54	-0.92	74.86	-0.98	-1.40
ZCLREL		70.30	0.02	0.03	76.26	0.42	0.60
ZW9TYM	*	69.07	-1.21	-2.05	75.38	-0.46	-0.66

Summary Statistics

	Sample E83		Sample E84	
Grand Means	70.28	HR30N	75.84	HR30N
Stnd Dev Btwn Labs	0.59	HR30N	0.70	HR30N

Samples E83, E84 : Steel, Steel

Statistics based on 51 of 54 reporting participants

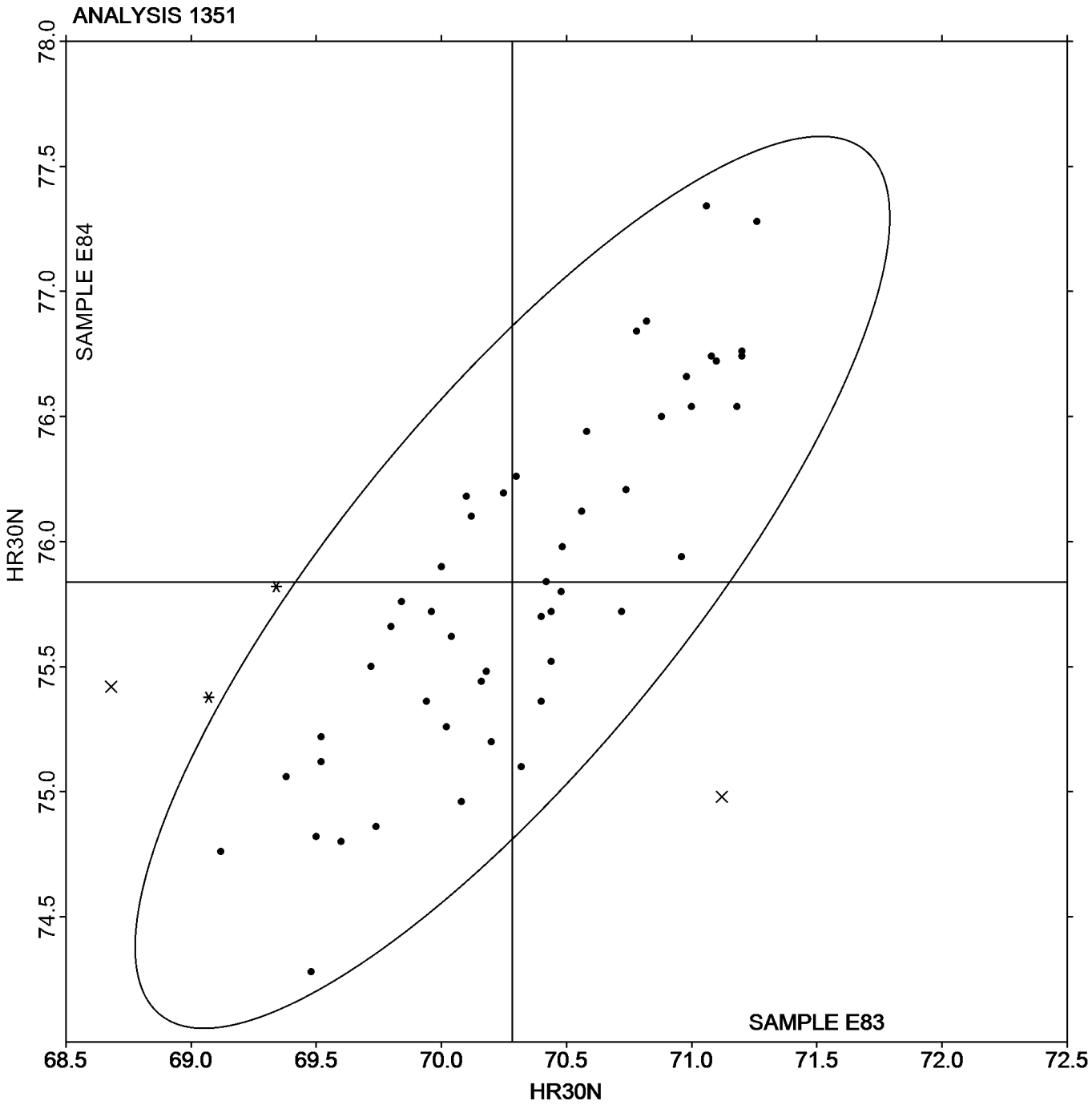
Comments on Assigned Data Flags for Test #1351

4V47JL (X) - Inconsistent in testing between samples.

G7JUWD (X) - Data for sample E84 are low.

KT2JR7 (X) - Data for sample E83 are low.

SAMPLE E83	SAMPLE E84
70.28 HR30N	75.84 HR30N



		Sample C83			Sample C84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
3BNRGE		0.0289	0.0029	0.87	0.0323	0.0041	0.93
3MXH3M		0.0260	0.0001	0.02	0.0298	0.0016	0.36
44JXV6	*	0.0174	-0.0085	-2.53	0.0142	-0.0140	-3.17
47PQZH		0.0255	-0.0004	-0.12	0.0284	0.0002	0.04
4AN2WG		0.0286	0.0027	0.79	0.0300	0.0018	0.41
6KLLBE		0.0224	-0.0035	-1.04	0.0280	-0.0002	-0.06
6L9MDB		0.0255	-0.0004	-0.12	0.0254	-0.0028	-0.62
8DBPPY		0.0322	0.0062	1.85	0.0365	0.0083	1.87
8KD8BJ		0.0318	0.0058	1.73	0.0298	0.0016	0.37
A78R4L		0.0231	-0.0028	-0.83	0.0303	0.0021	0.47
ABXUXR		0.0238	-0.0021	-0.63	0.0250	-0.0032	-0.72
B6B722		0.0257	-0.0002	-0.06	0.0265	-0.0017	-0.38
B72GP9		0.0294	0.0035	1.04	0.0323	0.0041	0.94
BWCNFX		0.0280	0.0021	0.61	0.0310	0.0028	0.63
C7GGGH		0.0286	0.0027	0.79	0.0294	0.0012	0.27
CFKBJG		0.0278	0.0018	0.54	0.0308	0.0026	0.58
CLP87M		0.0280	0.0021	0.61	0.0312	0.0030	0.68
E4MYAZ		0.0227	-0.0032	-0.95	0.0258	-0.0024	-0.55
GHT8XT		0.0304	0.0045	1.32	0.0318	0.0036	0.81
HQ4QTC		0.0228	-0.0032	-0.94	0.0267	-0.0015	-0.34
K7NNZ3		0.0275	0.0016	0.47	0.0299	0.0017	0.38
KUV8B2		0.0204	-0.0055	-1.64	0.0231	-0.0051	-1.16
LAMXFG		0.0317	0.0058	1.71	0.0348	0.0066	1.48
LPFWTQ		0.0242	-0.0017	-0.50	0.0231	-0.0051	-1.15
M28GFV		0.0264	0.0004	0.13	0.0286	0.0004	0.09
MVZ66F		0.0226	-0.0034	-0.99	0.0248	-0.0034	-0.77
NTRAZ4		0.0232	-0.0028	-0.82	0.0196	-0.0086	-1.93
P63ZH6		0.0270	0.0011	0.32	0.0290	0.0008	0.18
PW9VP4	*	0.0250	-0.0009	-0.28	0.0200	-0.0082	-1.85
Q7BHCU		0.0251	-0.0008	-0.25	0.0272	-0.0010	-0.23
QANMKN		0.0280	0.0021	0.61	0.0354	0.0072	1.62
QNPLLK		0.0261	0.0001	0.04	0.0286	0.0004	0.09
RLG3AP		0.0221	-0.0038	-1.14	0.0265	-0.0017	-0.38
RQQL4C		0.0239	-0.0020	-0.60	0.0263	-0.0019	-0.43
U3DVZL		0.0202	-0.0057	-1.70	0.0222	-0.0060	-1.36
U6LPK8	*	0.0215	-0.0045	-1.32	0.0307	0.0025	0.56
UQ7ATA		0.0303	0.0044	1.30	0.0348	0.0066	1.49
V6ZVDM		0.0246	-0.0013	-0.40	0.0284	0.0002	0.05
VFFN3H		0.0276	0.0016	0.48	0.0327	0.0045	1.01
VZ4QMJ		0.0290	0.0031	0.91	0.0308	0.0026	0.59
X4GW9N		0.0259	0.0000	0.00	0.0264	-0.0018	-0.40
Y9TVNN		0.0304	0.0045	1.32	0.0308	0.0026	0.59
YZXWT9		0.0270	0.0011	0.33	0.0293	0.0011	0.25
ZCLREL		0.0228	-0.0031	-0.93	0.0226	-0.0056	-1.25

Summary Statistics

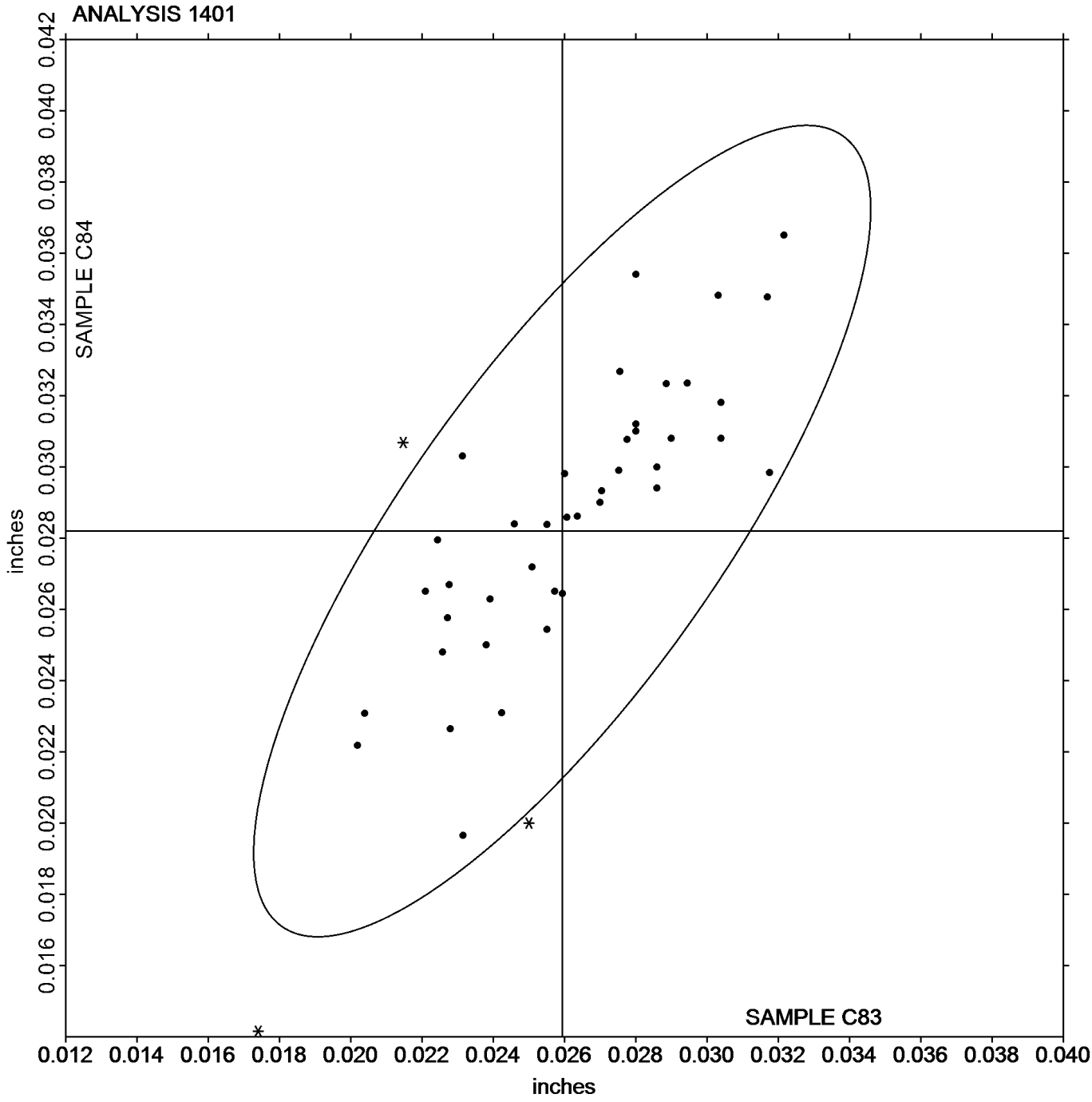
	Sample C83		Sample C84	
Grand Means	0.0259	inches	0.0282	inches
Stnd Dev Btwn Labs	0.0034	inches	0.0044	inches

Samples C83, C84 : Steel, Steel

Statistics based on 44 of 44 reporting participants

SAMPLE C83
0.0259 inches

SAMPLE C84
0.0282 inches



		Sample C83			Sample C84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
3BNRGE		0.0252	0.0005	0.27	0.0281	0.0009	0.41
3G9DJD		0.0283	0.0036	1.96	0.0298	0.0025	1.15
3MXH3M		0.0240	-0.0007	-0.39	0.0268	-0.0004	-0.20
44JXV6	X	0.0353	0.0106	5.82	0.0329	0.0056	2.57
47PQZH		0.0230	-0.0017	-0.92	0.0263	-0.0010	-0.45
4AN2WG	*	0.0216	-0.0031	-1.71	0.0212	-0.0060	-2.77
4P3ATE		0.0272	0.0025	1.38	0.0304	0.0032	1.45
4QBRM4		0.0239	-0.0008	-0.47	0.0294	0.0021	0.97
6KLLBE	*	0.0219	-0.0028	-1.57	0.0284	0.0012	0.53
6L9MDB		0.0261	0.0014	0.75	0.0260	-0.0013	-0.58
8DBPPY		0.0239	-0.0008	-0.47	0.0261	-0.0011	-0.52
8KD8BJ		0.0281	0.0034	1.87	0.0306	0.0034	1.56
A78R4L	X	0.0200	-0.0047	-2.59	0.0280	0.0008	0.37
ABXUXR		0.0234	-0.0013	-0.72	0.0260	-0.0012	-0.57
B6B722		0.0244	-0.0003	-0.17	0.0264	-0.0008	-0.39
B72GP9		0.0272	0.0025	1.40	0.0305	0.0032	1.49
BEWCVJ		0.0242	-0.0005	-0.28	0.0248	-0.0024	-1.12
BWCNFX		0.0248	0.0001	0.05	0.0277	0.0004	0.20
C7GGGH		0.0270	0.0023	1.27	0.0279	0.0007	0.30
CFKBJG	*	0.0281	0.0034	1.86	0.0335	0.0063	2.88
E37KL4		0.0267	0.0020	1.11	0.0295	0.0023	1.03
E4JLHX		0.0263	0.0016	0.87	0.0266	-0.0006	-0.29
E4MYAZ		0.0225	-0.0022	-1.23	0.0259	-0.0013	-0.61
EL6XEX		0.0253	0.0006	0.34	0.0263	-0.0009	-0.42
FXQWGK		0.0244	-0.0003	-0.17	0.0282	0.0010	0.44
GFML7M	X	61.10	61.0753	33,679.09	60.62	60.5928	27,748.73
GHT8XT		0.0242	-0.0005	-0.28	0.0274	0.0002	0.07
GLU6G9		0.0258	0.0011	0.60	0.0280	0.0008	0.35
HQ4QTC		0.0225	-0.0022	-1.24	0.0264	-0.0008	-0.39
JBPC46		0.0254	0.0007	0.38	0.0270	-0.0002	-0.11
JKBDJE		0.0254	0.0006	0.36	0.0278	0.0006	0.27
JVBE9Y		0.0268	0.0021	1.15	0.0279	0.0007	0.32
K7NNZ3		0.0232	-0.0015	-0.83	0.0258	-0.0014	-0.66
KUV8B2		0.0262	0.0015	0.84	0.0281	0.0009	0.40
LAMXFG		0.0262	0.0015	0.82	0.0302	0.0030	1.35
LPFWTQ		0.0236	-0.0011	-0.63	0.0265	-0.0008	-0.36
MMM4XT	X	0.0210	-0.0037	-2.04	0.0150	-0.0122	-5.61
MVZ66F		0.0227	-0.0020	-1.11	0.0253	-0.0019	-0.89
P63ZH6		0.0250	0.0003	0.16	0.0274	0.0002	0.07
PW9VP4		0.0248	0.0001	0.05	0.0286	0.0014	0.62
Q7BHCU		0.0248	0.0001	0.05	0.0267	-0.0005	-0.25
QANMKN		0.0246	-0.0001	-0.06	0.0262	-0.0010	-0.48
QNPLLK		0.0253	0.0006	0.31	0.0274	0.0002	0.09
RQQL4C		0.0240	-0.0007	-0.39	0.0268	-0.0004	-0.20
U3DVZL		0.0258	0.0011	0.60	0.0274	0.0002	0.07
U6LPK8	X	0.0223	-0.0024	-1.30	0.0308	0.0036	1.64
UQ7ATA		0.0248	0.0001	0.05	0.0279	0.0006	0.29

WebCode	Data Flag	Sample C83 Lab Mean	Sample C83 Diff. from Grand Mean	Sample C83 CPV	Sample C84 Lab Mean	Sample C84 Diff. from Grand Mean	Sample C84 CPV
V6ZVDM		0.0206	-0.0041	-2.26	0.0242	-0.0030	-1.39
VFFN3H	*	0.0235	-0.0012	-0.64	0.0306	0.0033	1.52
VZ4QMJ		0.0261	0.0014	0.77	0.0280	0.0008	0.37
X4GW9N		0.0244	-0.0003	-0.17	0.0256	-0.0016	-0.75
XVNTF9		0.0261	0.0014	0.79	0.0277	0.0005	0.22
Y9TVNN		0.0214	-0.0033	-1.82	0.0226	-0.0046	-2.13
YZXWT9		0.0244	-0.0003	-0.16	0.0276	0.0003	0.15
ZB8GKM		0.0239	-0.0008	-0.47	0.0257	-0.0016	-0.72
ZCLREL		0.0212	-0.0035	-1.93	0.0222	-0.0050	-2.31

Summary Statistics

	Sample C83		Sample C84	
Grand Means	0.0247	inches	0.0272	inches
Stnd Dev Btwn Labs	0.0018	inches	0.0022	inches

Samples C83, C84 : Steel, Steel

Statistics based on 51 of 56 reporting participants

Comments on Assigned Data Flags for Test #1402

44JXV6 (X) - Data for sample C83 are high.

A78R4L (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample C84.

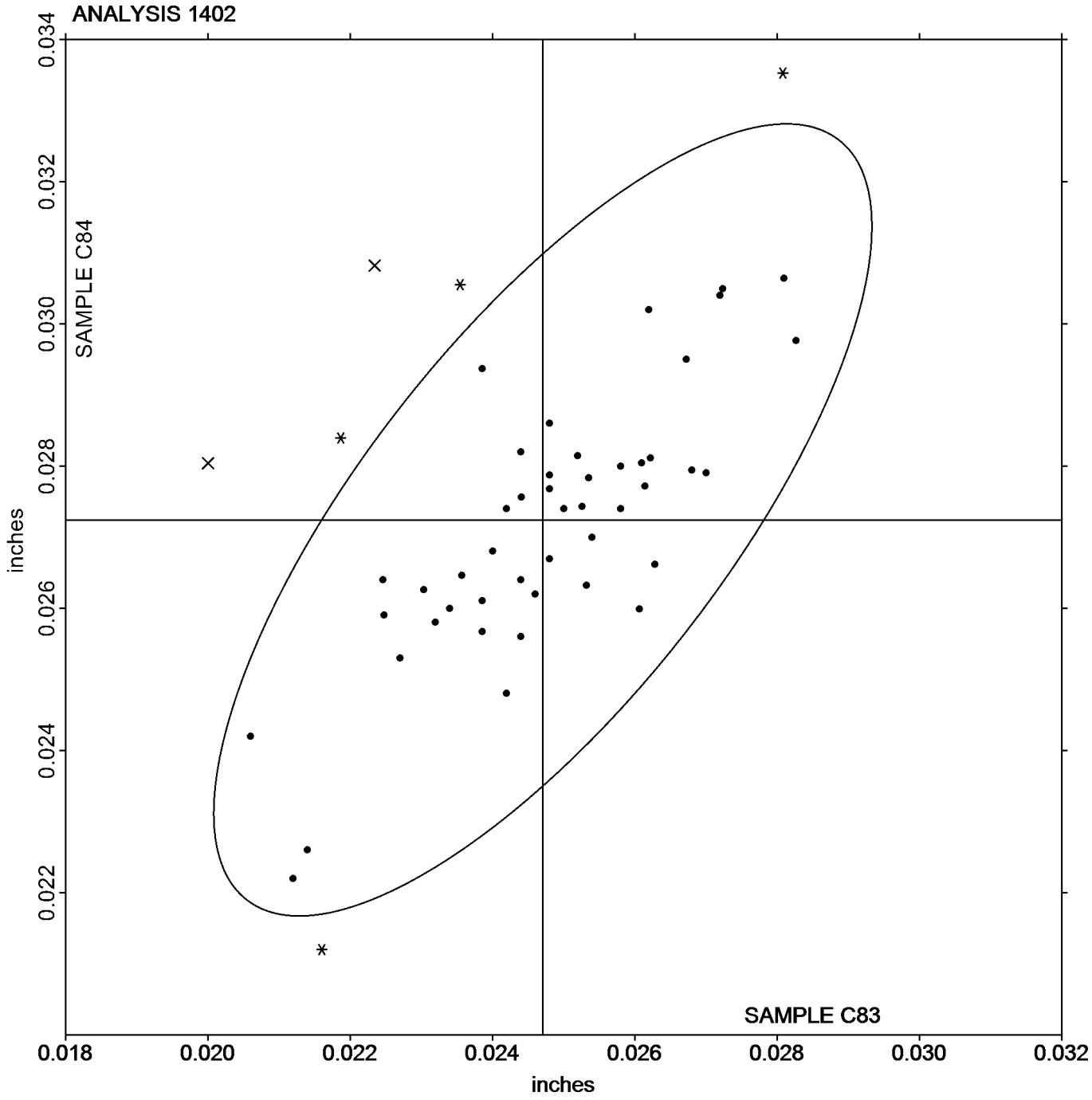
GFML7M (X) - Extreme data.

MMM4XT (X) - Data for sample C84 are low. Inconsistent within the determinations of both samples.

U6LPK8 (X) - Inconsistent in testing between samples.

SAMPLE C83
0.0247 inches

SAMPLE C84
0.0272 inches



		Sample Y83			Sample Y84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
3HXD69		4.800	-1.048	-1.28	9.600	0.181	0.23
3UURH8		5.500	-0.348	-0.42	9.500	0.081	0.10
47PQZH		6.200	0.352	0.43	8.000	-1.419	-1.77
4HGJ4Y		6.200	0.352	0.43	9.900	0.481	0.60
4P3ATE		4.600	-1.248	-1.52	10.20	0.781	0.97
4V47JL		6.478	0.630	0.77	8.898	-0.521	-0.65
4VKJMN		5.888	0.040	0.05	9.842	0.423	0.53
4XD4YN		5.250	-0.598	-0.73	8.750	-0.669	-0.83
6TBUWK		5.876	0.028	0.03	10.26	0.845	1.05
84ARUP		5.400	-0.448	-0.55	10.44	1.023	1.28
8C48VA		5.600	-0.248	-0.30	9.600	0.181	0.23
8DBPPY		5.000	-0.848	-1.03	10.50	1.081	1.35
8PMH8K		6.500	0.652	0.79	10.50	1.081	1.35
C7EEK6		4.600	-1.248	-1.52	8.200	-1.219	-1.52
C7GGGH		4.400	-1.448	-1.77	9.600	0.181	0.23
E4MYAZ		6.500	0.652	0.79	10.30	0.881	1.10
E6ENHZ		6.220	0.372	0.45	10.02	0.601	0.75
EG8NX6		6.800	0.952	1.16	10.90	1.481	1.85
EMGULN		7.200	1.352	1.65	9.200	-0.219	-0.27
EZJW9H		5.400	-0.448	-0.55	9.500	0.081	0.10
FLEJ9R		5.098	-0.750	-0.92	9.262	-0.157	-0.20
GFML7M		6.600	0.752	0.92	9.700	0.281	0.35
GPFVW6		5.800	-0.048	-0.06	8.000	-1.419	-1.77
GXLLC2		5.460	-0.388	-0.47	9.079	-0.339	-0.42
HQ4QTC		5.900	0.052	0.06	9.640	0.221	0.28
J2FHUQ		6.300	0.452	0.55	10.40	0.981	1.22
K7NNZ3		6.300	0.452	0.55	10.90	1.481	1.85
LG9N6X		7.100	1.252	1.53	9.300	-0.119	-0.15
LGPBRY		4.800	-1.048	-1.28	8.000	-1.419	-1.77
LMEFFG	*	8.200	2.352	2.87	9.200	-0.219	-0.27
LZFY6V	X	10.20	4.352	5.31	5.500	-3.919	-4.89
MMM4XT		7.700	1.852	2.26	9.000	-0.419	-0.52
MRJ9R4		5.800	-0.048	-0.06	7.800	-1.619	-2.02
MZT8B2		6.100	0.252	0.31	9.600	0.181	0.23
NH9874		5.400	-0.448	-0.55	8.000	-1.419	-1.77
NTRAZ4		5.580	-0.268	-0.33	8.640	-0.779	-0.97
P63ZH6		6.500	0.652	0.79	9.000	-0.419	-0.52
PK9YD8		5.880	0.032	0.04	9.240	-0.179	-0.22
Q7BHCU		6.800	0.952	1.16	10.40	0.981	1.22
QANMKN		5.900	0.052	0.06	10.00	0.581	0.73
QMYUMF		6.198	0.350	0.43	9.774	0.355	0.44
RLG3AP		5.320	-0.528	-0.64	9.520	0.101	0.13
T2P2NR		4.000	-1.848	-2.25	10.20	0.781	0.97
U3DVZL		5.200	-0.648	-0.79	9.800	0.381	0.48
U6LPK8		6.000	0.152	0.19	8.000	-1.419	-1.77
UG9X2L	X	1.500	-4.348	-5.30	4.500	-4.919	-6.13
UQ7ATA		4.800	-1.048	-1.28	9.100	-0.319	-0.40

WebCode	Data Flag	Sample Y83 Lab Mean	Sample Y83 Diff. from Grand Mean	Sample Y83 CPV	Sample Y84 Lab Mean	Sample Y84 Diff. from Grand Mean	Sample Y84 CPV
WWY2UF		5.900	0.052	0.06	9.000	-0.419	-0.52
X4GW9N		6.400	0.552	0.67	8.800	-0.619	-0.77
XV6XX7		5.516	-0.332	-0.41	9.756	0.337	0.42
ZJM6GB		5.662	-0.186	-0.23	8.898	-0.521	-0.65
ZNFURT		6.603	0.754	0.92	8.340	-1.078	-1.34
ZW7HG4		5.100	-0.748	-0.91	9.900	0.481	0.60
ZZC7CG		5.780	-0.068	-0.08	9.800	0.381	0.48

Summary Statistics

	Sample Y83		Sample Y84	
Grand Means	5.848	ASTM Grain Size	9.419	ASTM Grain Size
Stnd Dev Btwn Labs	0.820	ASTM Grain Size	0.802	ASTM Grain Size

Samples Y83, Y84 : AISI 304L, AISI 304L

Statistics based on 52 of 54 reporting participants

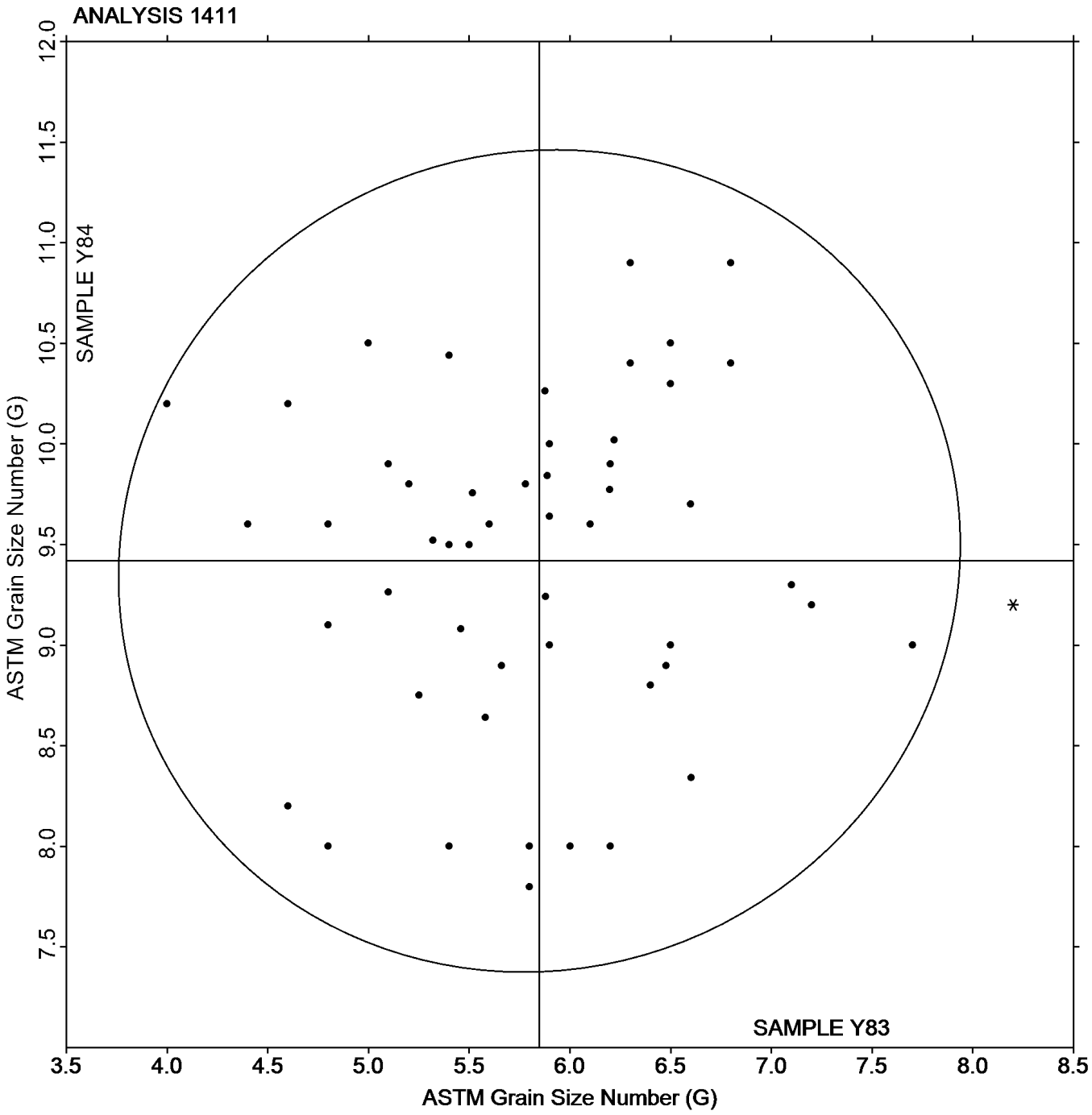
Comments on Assigned Data Flags for Test #1411

LZFY6V (X) - Data for sample Y83 are high and data for sample Y84 are low.

UG9X2L (X) - Data for both samples are low. Inconsistent within the determinations of sample Y84.

SAMPLE Y83
5.848 ASTM Grain Size Number (G)

SAMPLE Y84
9.419 ASTM Grain Size Number (G)



		Sample W83			Sample W84		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2YTQBK		0.000137	-0.000064	-1.67	0.000283	-0.000022	-0.45
3E2PQL		0.000199	-0.000002	-0.05	0.000275	-0.000029	-0.60
3HHWAF		0.000226	0.000025	0.66	0.000298	-0.000007	-0.14
4V47JL	X	0.000789	0.000588	15.40	0.000242	-0.000063	-1.28
6U3URB	X	0.000576	0.000375	9.83	0.000227	-0.000078	-1.57
BEWCVJ		0.000178	-0.000023	-0.61	0.000314	0.000009	0.18
C7EEK6		0.000248	0.000047	1.24	0.000336	0.000031	0.63
E4MYAZ		0.000220	0.000019	0.50	0.000320	0.000015	0.31
FXQWGK		0.000229	0.000028	0.74	0.000325	0.000021	0.42
GPFVW6	X	0.000634	0.000433	11.35	0.0113	0.011027	223.13
J2FHUQ		0.000165	-0.000035	-0.92	0.000252	-0.000053	-1.07
J9XNTJ		0.000181	-0.000020	-0.51	0.000299	-0.000005	-0.11
KPJQQY		0.000194	-0.000007	-0.19	0.000298	-0.000006	-0.13
LGPBRY		0.000201	0.000000	-0.01	0.000397	0.000092	1.86
LQ6Y6R		0.000200	-0.000001	-0.02	0.000300	-0.000005	-0.10
MMM4XT		0.000120	-0.000081	-2.12	0.000360	0.000055	1.12
N93WNY		0.000181	-0.000020	-0.53	0.000181	-0.000124	-2.51
T2P2NR		0.000198	-0.000003	-0.08	0.000298	-0.000007	-0.13
U2NQ6U		0.000220	0.000019	0.50	0.000260	-0.000045	-0.91
WRT6CZ		0.000288	0.000087	2.28	0.000326	0.000021	0.43
WW7GJW		0.000238	0.000037	0.97	0.000298	-0.000007	-0.14
WWY2UF	X	0.000460	0.000259	6.79	0.000420	0.000115	2.33
XV6XX7		0.000220	0.000019	0.50	0.000404	0.000099	2.01
ZW7HG4		0.000174	-0.000027	-0.70	0.000272	-0.000033	-0.66

Summary Statistics

	Sample W83		Sample W84	
Grand Means	0.000201	inches	0.000305	inches
Stnd Dev Btwn Labs	0.000038	inches	0.000049	inches

Samples W83, W84 : Ti-CP2, Ti-6Al-4V

Statistics based on 20 of 24 reporting participants

Comments on Assigned Data Flags for Test #1421

4V47JL (X) - Data for sample W83 are high. Inconsistent within the determinations of sample W83.

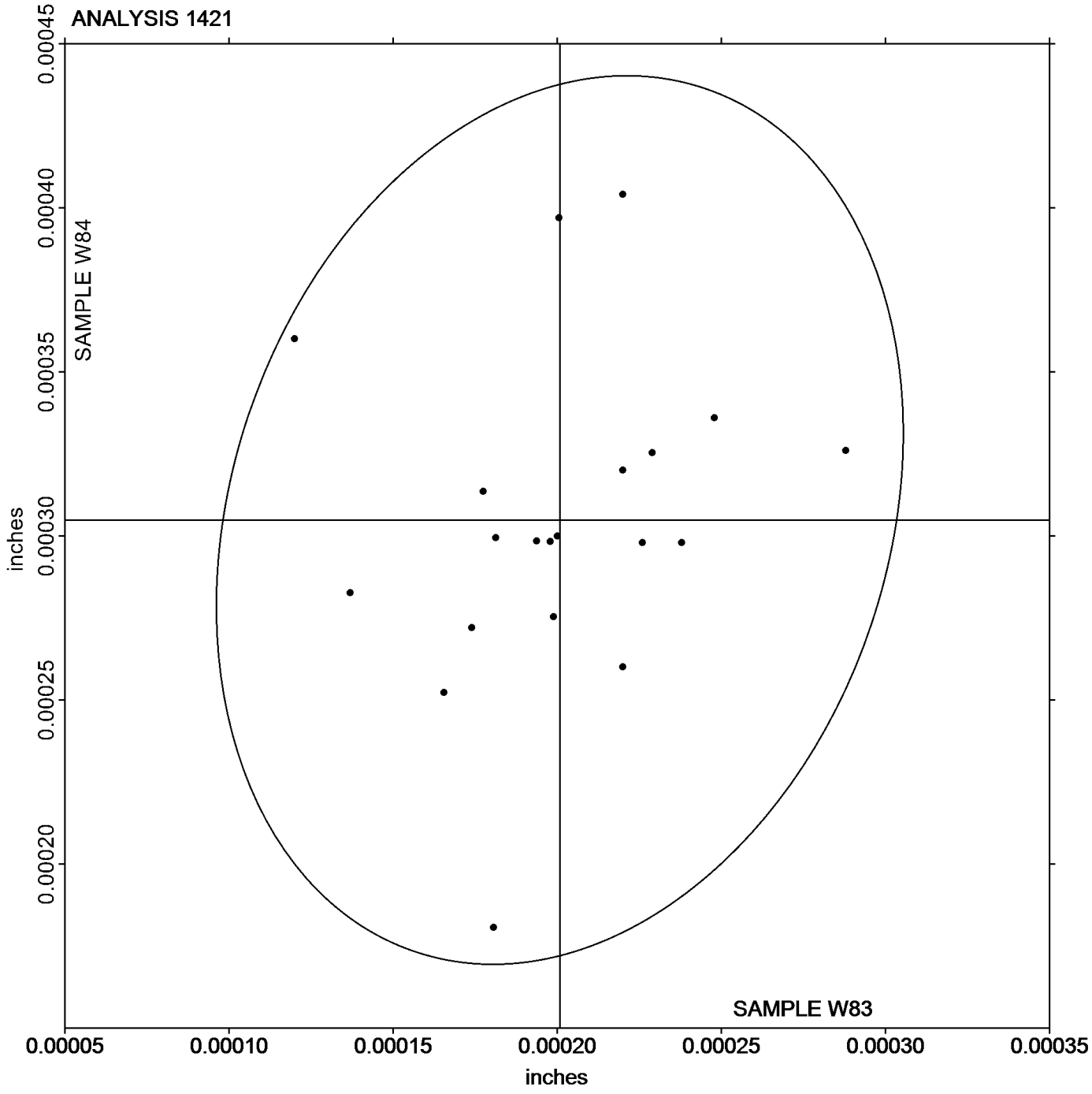
6U3URB (X) - Data for sample W83 are high. Inconsistent within the determinations of sample W83.

GPFVW6 (X) - Data for both samples are high. Inconsistent within the determinations of both samples.

WWY2UF (X) - Data for sample W83 are high. Inconsistent within the determinations of sample W83.

SAMPLE W83
0.00020 inches

SAMPLE W84
0.00030 inches



WebCode	Data Flag	Sample K83 Lab Mean	Sample K83 Diff. from Grand Mean	Sample K83 CPV	Sample K84 Lab Mean	Sample K84 Diff. from Grand Mean	Sample K84 CPV
3HHWAF		0.000178	-0.000106	-1.52	0.000458	-0.000032	-0.20
4V47JL		0.000218	-0.000066	-0.95	0.000342	-0.000148	-0.92
8C48VA		0.000254	-0.000030	-0.43	0.000624	0.000134	0.83
DKA8HR		0.000243	-0.000041	-0.59	0.000513	0.000023	0.14
FQT6CW		0.000254	-0.000030	-0.43	0.000264	-0.000226	-1.41
FRNPYW		0.000200	-0.000084	-1.20	0.000840	0.000350	2.17
FXQWGK		0.000329	0.000045	0.64	0.000426	-0.000064	-0.40
J2FHUQ		0.000299	0.000016	0.22	0.000473	-0.000017	-0.11
U2NQ6U		0.000380	0.000096	1.38	0.000480	-0.000010	-0.06
V3DCCP		0.000360	0.000076	1.10	0.000560	0.000070	0.44
WRT6CZ		0.000312	0.000028	0.40	0.000282	-0.000208	-1.29
WWY2UF		0.000380	0.000096	1.38	0.000620	0.000130	0.81

Summary Statistics

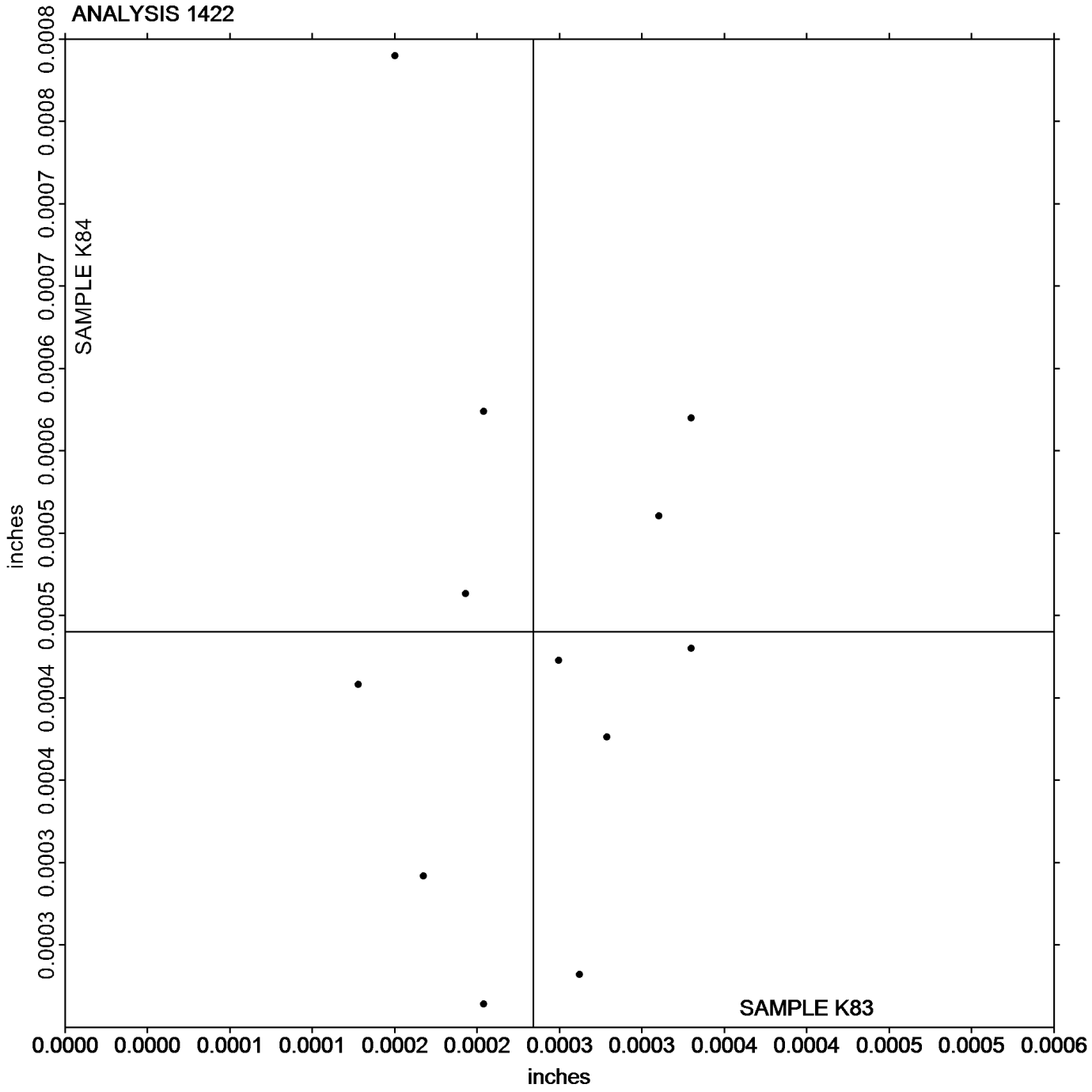
	Sample K83		Sample K84	
Grand Means	0.000284	inches	0.000490	inches
Stnd Dev Btwn Labs	0.000070	inches	0.000161	inches

Samples K83, K84 : Inco 718, Waspaloy

Statistics based on 12 of 12 reporting participants

SAMPLE K83
0.00028 inches

SAMPLE K84
0.00049 inches



		Sample J83			Sample J84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		22.01	-0.24	-0.96	22.11	-0.28	-1.10	OE
4UQV4T		22.25	0.01	0.02	22.37	-0.01	-0.06	IC
4XD4YN		22.84	0.59	2.39	22.98	0.59	2.30	XX
6HBY2B		22.10	-0.14	-0.57	22.14	-0.25	-0.98	OE
6HF49D		22.25	0.01	0.03	22.28	-0.11	-0.41	IC
6TBUWK		22.15	-0.09	-0.37	22.30	-0.09	-0.35	WD
6YLPY9		22.16	-0.08	-0.33	22.48	0.10	0.37	IC
8C48VA		22.08	-0.17	-0.67	22.25	-0.14	-0.54	OE
8PMH8K		22.18	-0.07	-0.28	22.39	0.01	0.02	XX
AZDE6X	X	21.09	-1.15	-4.65	20.97	-1.42	-5.54	IC
BEWCVJ	X	20.05	-2.20	-8.86	20.10	-2.29	-8.95	OE
DKA8HR		22.38	0.13	0.53	22.50	0.11	0.44	WD
F34KBP		22.44	0.20	0.80	22.59	0.20	0.79	OE
FAK3KQ	X	21.46	-0.78	-3.15	22.07	-0.32	-1.26	VO
FLEJ9R		21.97	-0.27	-1.10	22.05	-0.34	-1.32	ED
FNMERF		22.13	-0.11	-0.45	22.26	-0.12	-0.49	WD
GFML7M		22.20	-0.04	-0.17	22.37	-0.02	-0.08	OE
H89M62		22.39	0.15	0.60	22.50	0.12	0.45	WD
HQ4QTC		22.24	-0.01	-0.02	22.40	0.01	0.05	XX
K794XY		22.32	0.08	0.32	22.41	0.02	0.08	DR
K7NNZ3		22.54	0.29	1.19	22.65	0.26	1.01	OE
KPJQQY		21.98	-0.27	-1.07	22.09	-0.30	-1.16	OE
NTRAZ4	*	21.47	-0.78	-3.13	21.62	-0.76	-2.99	OE
NZ9CFX		22.38	0.13	0.53	22.52	0.14	0.53	OE
PQHRDR		22.26	0.02	0.07	22.30	-0.08	-0.33	WD
PZH6MZ		22.27	0.02	0.08	22.43	0.04	0.17	WD
RAZMVP	*	22.92	0.68	2.73	23.10	0.71	2.80	WD
RY34V3		22.28	0.03	0.13	22.29	-0.09	-0.37	OE
U3DVZL		22.19	-0.05	-0.21	22.37	-0.01	-0.06	WD
UVJMHG		22.18	-0.07	-0.26	22.36	-0.03	-0.11	OE
V3DCCP		22.11	-0.14	-0.55	22.29	-0.09	-0.37	WD
VELCD4		22.20	-0.05	-0.20	22.33	-0.06	-0.23	OE
VL6ZPL		22.37	0.13	0.51	22.54	0.15	0.60	IC
W9ERYC		22.37	0.12	0.49	22.47	0.08	0.31	GD
Z8MLPH	X	23.23	0.99	3.99	23.26	0.87	3.41	OE
ZB8GKM		22.44	0.19	0.79	22.63	0.24	0.95	OE
ZW7HG4		22.24	0.00	0.00	22.53	0.14	0.56	OE
ZZC7CG		22.03	-0.22	-0.88	22.26	-0.13	-0.50	WD

Summary Statistics

	Sample J83		Sample J84	
Grand Means	22.25	Percent	22.39	Percent
Stnd Dev Btwn Labs	0.25	Percent	0.26	Percent

Samples J83, J84 : Inco 625, Inco 625

Statistics based on 34 of 38 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	ED	X-Ray Fluorescence - Energy Dispersive (EDX)
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)	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #1500

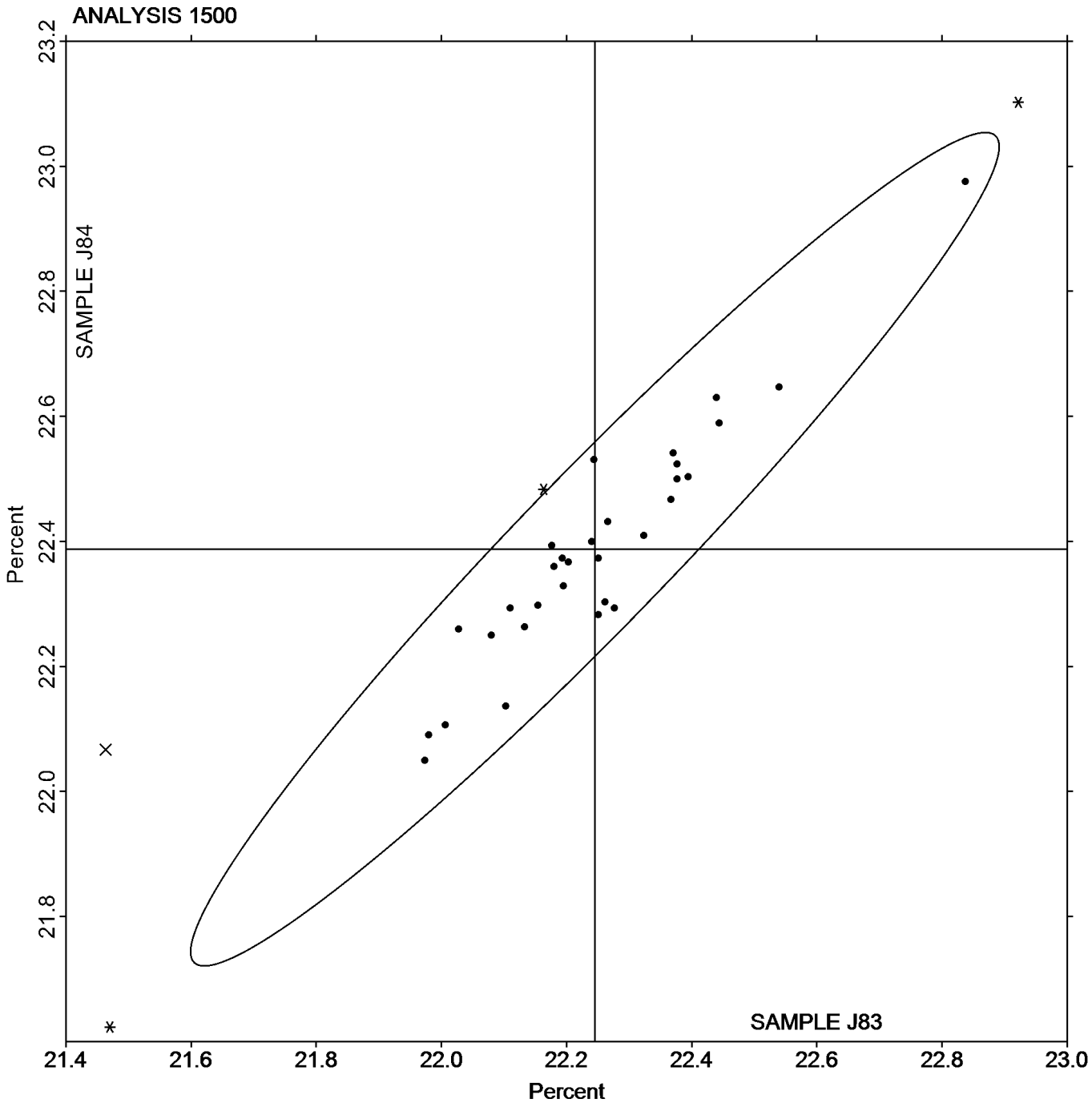
AZDE6X (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample J83.

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

FAK3KQ (X) - Data for sample J83 are low. Inconsistent within the determinations of both samples.

Z8MLPH (X) - Data for both samples are high. Possible Systematic Error.

SAMPLE J83	SAMPLE J84
22.25 Percent	22.39 Percent



		Sample J83			Sample J84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		0.1210	0.0107	1.52	0.0485	0.0008	0.13	OE
4UQV4T		0.1015	-0.0088	-1.25	0.0385	-0.0093	-1.51	IC
4XD4YN		0.1241	0.0138	1.97	0.0531	0.0054	0.87	XX
4Y8REX		0.1060	-0.0043	-0.62	0.0491	0.0014	0.22	IC
6HBY2B		0.0972	-0.0131	-1.87	0.0404	-0.0074	-1.20	OE
6HF49D	X	0.1073	-0.0030	-0.43	0.0664	0.0187	3.03	IC
6TBUWK		0.1073	-0.0030	-0.43	0.0449	-0.0028	-0.46	WD
6YLPY9		0.1080	-0.0023	-0.33	0.0453	-0.0024	-0.40	IC
8C48VA		0.1163	0.0060	0.86	0.0490	0.0012	0.20	OE
8PMH8K		0.1243	0.0140	2.00	0.0630	0.0153	2.48	GD
AZDE6X		0.1034	-0.0069	-0.99	0.0438	-0.0039	-0.64	IC
BEWCVJ	X	0.3000	0.1897	27.05	0.2500	0.2023	32.84	OE
DKA8HR		0.1030	-0.0073	-1.04	0.0419	-0.0059	-0.95	WD
F34KBP		0.1100	-0.0003	-0.05	0.0400	-0.0078	-1.26	OE
FAK3KQ		0.1067	-0.0036	-0.52	0.0427	-0.0051	-0.82	AA
FLEJ9R	X	0.1713	0.0610	8.70	0.1070	0.0593	9.62	ED
FNMERF		0.1077	-0.0026	-0.38	0.0497	0.0019	0.31	WD
GFML7M		0.1100	-0.0003	-0.04	0.0500	0.0023	0.37	OE
H89M62		0.1103	0.0000	0.00	0.0500	0.0023	0.37	WD
HQ4QTC		0.1117	0.0014	0.19	0.0467	-0.0011	-0.18	IC
K794XY		0.1189	0.0086	1.22	0.0624	0.0147	2.39	DR
K7NNZ3		0.1060	-0.0043	-0.62	0.0510	0.0033	0.53	OE
KPJQQY		0.1070	-0.0033	-0.47	0.0462	-0.0016	-0.26	OE
NTRAZ4	X	0.0770	-0.0333	-4.75	0.00323	-0.0445	-7.23	OE
NZ9CFX		0.1063	-0.0040	-0.57	0.0450	-0.0027	-0.45	OE
PQHRDR		0.1154	0.0051	0.73	0.0611	0.0134	2.17	WD
PZH6MZ		0.1023	-0.0080	-1.14	0.0440	-0.0037	-0.61	WD
RAZMVP		0.1003	-0.0100	-1.43	0.0385	-0.0092	-1.50	WD
RY34V3		0.1100	-0.0003	-0.04	0.0504	0.0027	0.43	OE
U3DVZL	*	0.1200	0.0097	1.38	0.0433	-0.0044	-0.72	OE
UVJMHG		0.1140	0.0037	0.53	0.0510	0.0033	0.53	OE
V3DCCP		0.1123	0.0020	0.29	0.0538	0.0061	0.98	WD
VELCD4		0.1143	0.0039	0.56	0.0462	-0.0016	-0.26	OE
VL6ZPL		0.1051	-0.0052	-0.74	0.0419	-0.0059	-0.95	IC
W9ERYC		0.1053	-0.0050	-0.71	0.0435	-0.0042	-0.68	GD
Z8MLPH		0.1223	0.0120	1.71	0.0505	0.0028	0.45	OE
ZB8GKM		0.1180	0.0077	1.10	0.0540	0.0063	1.02	OE
ZW7HG4		0.1105	0.0002	0.03	0.0491	0.0014	0.22	OE
ZZC7CG		0.1043	-0.0060	-0.85	0.0427	-0.0051	-0.82	WD

Summary Statistics

	Sample J83		Sample J84	
Grand Means	0.1103	Percent	0.0477	Percent
Stnd Dev Btwn Labs	0.0070	Percent	0.0062	Percent

Samples J83, J84 : Inco 625, Inco 625

Statistics based on 35 of 39 reporting participants

Key to Method Codes Reported by Participants

AA	Spectrometry - Atomic Absorption (AAS)	DR	Spectrometry - Direct Reading OE (DROES)
ED	X-Ray Fluorescence - Energy Dispersive (EDX)	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 #1501

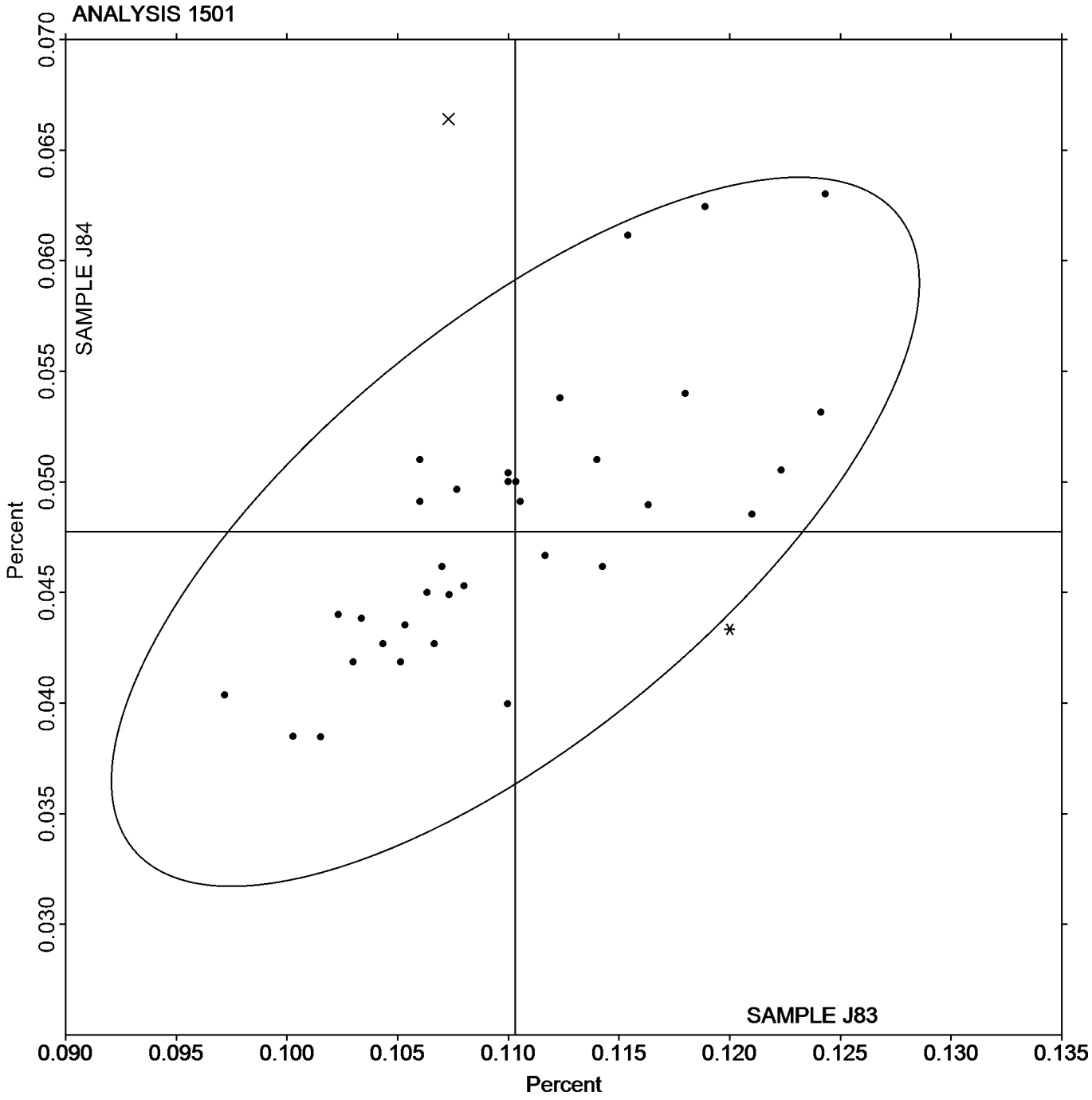
6HF49D (X) - Data for sample J84 are high.

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

FLEJ9R (X) - Data for both samples are high. Inconsistent within the determinations of sample J83.

NTRAZ4 (X) - Data for both samples are low.

SAMPLE J83	SAMPLE J84
0.1103 Percent	0.0477 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 1502

Nickel-based Alloy, IRON (Fe)
IRON (Fe)

Cycle 138
2nd Qtr
2022

		Sample J83			Sample J84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		4.927	0.104	1.03	3.927	0.150	1.48	OE
4UQV4T		4.744	-0.079	-0.78	3.688	-0.089	-0.88	IC
4XD4YN		4.922	0.099	0.98	3.850	0.073	0.72	XX
4Y8REX		4.593	-0.229	-2.27	3.586	-0.191	-1.89	IC
6HBY2B		4.887	0.064	0.64	3.833	0.056	0.56	OE
6HF49D		4.840	0.018	0.17	3.739	-0.038	-0.38	IC
6TBUWK		4.764	-0.058	-0.57	3.723	-0.054	-0.53	WD
6YLPY9		4.838	0.016	0.16	3.743	-0.034	-0.33	IC
8C48VA		4.766	-0.057	-0.56	3.732	-0.045	-0.44	OE
8PMH8K		4.930	0.108	1.07	3.963	0.186	1.84	GD
AZDE6X		4.623	-0.199	-1.97	3.570	-0.207	-2.05	IC
BEWCVJ		4.943	0.121	1.19	3.849	0.072	0.71	XR
DKA8HR		4.811	-0.012	-0.12	3.751	-0.026	-0.26	WD
F34KBP		4.836	0.013	0.13	3.885	0.108	1.07	OE
FAK3KQ		4.693	-0.129	-1.28	3.643	-0.134	-1.32	VO
FLEJ9R		4.705	-0.118	-1.16	3.676	-0.101	-1.00	ED
FNMERF		4.823	0.000	0.00	3.758	-0.019	-0.19	WD
GFML7M		4.893	0.071	0.70	3.820	0.043	0.43	OE
H89M62		4.809	-0.013	-0.13	3.750	-0.027	-0.27	WD
HQ4QTC		4.817	-0.006	-0.06	3.817	0.040	0.39	XX
K794XY		4.880	0.058	0.57	3.940	0.162	1.61	DR
K7NNZ3		5.016	0.194	1.92	3.834	0.057	0.57	OE
KPJQQY		4.780	-0.042	-0.42	3.720	-0.057	-0.56	OE
NTRAZ4	X	6.236	1.414	14.00	3.332	-0.445	-4.40	OE
NZ9CFX		4.823	0.001	0.01	3.963	0.186	1.84	OE
PQHRDR		4.864	0.042	0.41	3.798	0.021	0.21	WD
PZH6MZ		4.834	0.012	0.12	3.779	0.002	0.02	WD
RAZMVP		4.929	0.107	1.05	3.852	0.075	0.74	WD
RY34V3		4.767	-0.056	-0.55	3.770	-0.007	-0.07	OE
U3DVZL		4.843	0.021	0.21	3.783	0.006	0.06	WD
UVJMHG		4.969	0.147	1.45	3.708	-0.069	-0.68	OE
V3DCCP		4.730	-0.093	-0.92	3.696	-0.081	-0.80	WD
VELCD4		4.819	-0.003	-0.03	3.829	0.052	0.52	OE
VL6ZPL		4.772	-0.050	-0.50	3.681	-0.096	-0.95	IC
W9ERYC		5.007	0.184	1.82	3.943	0.166	1.65	GD
ZW7HG4		4.632	-0.191	-1.89	3.631	-0.146	-1.44	OE
ZZC7CG		4.776	-0.046	-0.46	3.739	-0.038	-0.38	WD

Summary Statistics

	Sample J83		Sample J84	
Grand Means	4.822	Percent	3.777	Percent
Stnd Dev Btwn Labs	0.101	Percent	0.101	Percent

Samples J83, J84 : Inco 625, Inco 625

Statistics based on 36 of 37 reporting participants

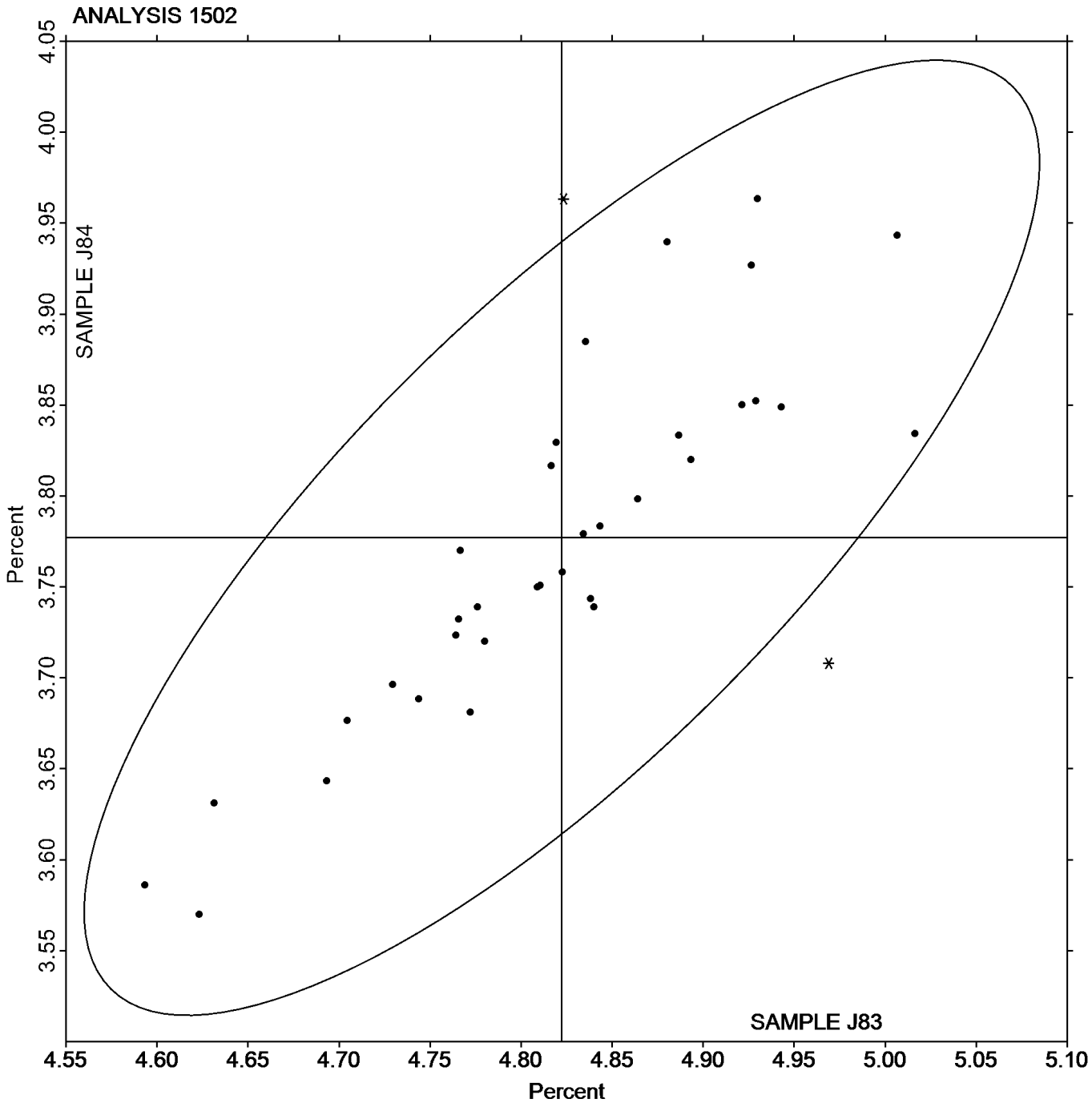
Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	ED	X-Ray Fluorescence - Energy Dispersive (EDX)
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 #1502

NTRAZ4 (X) - Data for sample J83 are high and data for sample J84 are low. Inconsistent in testing between samples. Inconsistent within the determinations of sample J84.

SAMPLE J83	SAMPLE J84
4.822 Percent	3.777 Percent



		Sample J83			Sample J84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		9.100	0.046	0.28	8.763	-0.024	-0.15	OE
4XD4YN	*	9.351	0.297	1.80	9.154	0.366	2.30	XX
4Y8REX		9.051	-0.003	-0.02	8.854	0.066	0.42	IC
6HBY2B		9.203	0.149	0.90	8.893	0.106	0.66	OE
6HF49D		9.129	0.075	0.45	8.773	-0.015	-0.09	IC
6TBUWK		9.127	0.073	0.44	8.849	0.061	0.38	WD
6YLPY9		9.016	-0.038	-0.23	8.800	0.013	0.08	IC
8C48VA		9.080	0.026	0.16	8.790	0.002	0.02	OE
8PMH8K		9.145	0.091	0.55	8.914	0.126	0.79	GD
AZDE6X	*	8.573	-0.481	-2.91	8.353	-0.434	-2.73	IC
BEWCVJ	X	9.900	0.846	5.12	10.00	1.212	7.61	OE
DKA8HR		9.051	-0.003	-0.02	8.789	0.001	0.01	WD
F34KBP		8.926	-0.128	-0.77	8.676	-0.112	-0.70	OE
FAK3KQ		8.830	-0.224	-1.36	8.660	-0.128	-0.80	IC
FLEJ9R		9.098	0.044	0.27	8.794	0.006	0.04	ED
FNMERF		9.059	0.005	0.03	8.792	0.005	0.03	WD
GFML7M		9.100	0.046	0.28	8.850	0.062	0.39	OE
H89M62		9.136	0.082	0.49	8.863	0.075	0.47	WD
HQ4QTC		9.000	-0.054	-0.33	8.743	-0.044	-0.28	XX
K794XY		9.024	-0.030	-0.18	8.680	-0.108	-0.68	DR
K7NNZ3	*	9.238	0.184	1.12	8.836	0.048	0.30	OE
KPJQQY		9.060	0.006	0.04	8.787	-0.001	-0.01	OE
NTRAZ4		9.101	0.047	0.29	8.821	0.033	0.21	OE
NZ9CFX		8.917	-0.137	-0.83	8.610	-0.178	-1.11	OE
PQHRDR		9.180	0.125	0.76	8.883	0.096	0.60	WD
PZH6MZ		9.068	0.014	0.08	8.809	0.022	0.14	WD
RAZMVP		9.363	0.308	1.87	9.140	0.353	2.22	WD
RY34V3		9.050	-0.004	-0.02	8.780	-0.008	-0.05	OE
U3DVZL		9.090	0.036	0.22	8.840	0.052	0.33	WD
UVJMHG		8.968	-0.086	-0.52	8.735	-0.053	-0.33	OE
V3DCCP		9.103	0.049	0.29	8.853	0.065	0.41	WD
VELCD4		9.070	0.016	0.10	8.843	0.055	0.35	OE
VL6ZPL		9.144	0.090	0.55	8.856	0.069	0.43	IC
W9ERYC	*	8.550	-0.504	-3.05	8.310	-0.478	-3.00	GD
Z8MLPH	X	6.890	-2.164	-13.11	6.700	-2.088	-13.11	OE
ZB8GKM	X	8.549	-0.505	-3.06	8.540	-0.248	-1.55	OE
ZW7HG4	X	9.871	0.816	4.95	8.841	0.053	0.33	OE
ZZC7CG		8.938	-0.116	-0.71	8.682	-0.105	-0.66	WD

Summary Statistics

	Sample J83		Sample J84	
Grand Means	9.054	Percent	8.788	Percent
Stnd Dev Btwn Labs	0.165	Percent	0.159	Percent

Samples J83, J84 : Inco 625, Inco 625

Statistics based on 34 of 38 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	ED	X-Ray Fluorescence - Energy Dispersive (EDX)
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 #1503

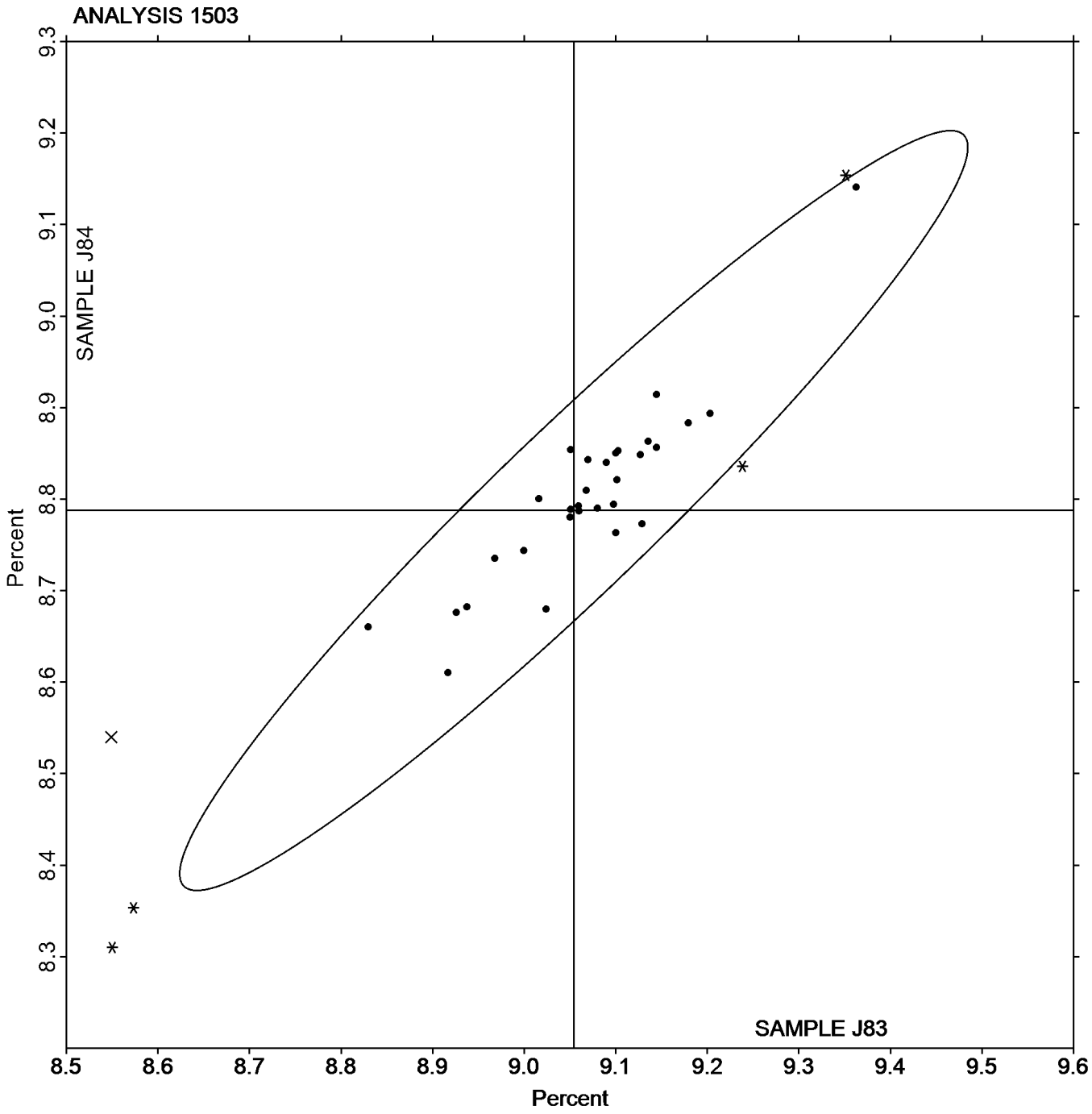
BEWCVJ (X) - Data for both samples are high. Possible Systematic Error.

Z8MLPH (X) - Data for both samples are low. Possible Systematic Error.

ZB8GKM (X) - Data for sample J83 are low.

ZW7HG4 (X) - Data for sample J83 are high.

SAMPLE J83	SAMPLE J84
9.054 Percent	8.788 Percent



		Sample J83			Sample J84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		0.2877	0.0158	1.23	0.2087	0.0232	2.36	OE
4UQV4T		0.2676	-0.0043	-0.33	0.1739	-0.0116	-1.18	IC
4XD4YN		0.3055	0.0336	2.61	0.2072	0.0217	2.21	XX
4Y8REX		0.2957	0.0238	1.85	0.1960	0.0105	1.07	IC
6HBY2B		0.2797	0.0078	0.60	0.1977	0.0122	1.24	OE
6HF49D		0.2692	-0.0027	-0.21	0.1835	-0.0020	-0.20	IC
6TBUWK		0.2699	-0.0020	-0.16	0.1896	0.0041	0.42	WD
6YLPY9		0.2803	0.0084	0.66	0.1960	0.0105	1.07	IC
8C48VA		0.2643	-0.0076	-0.59	0.1833	-0.0022	-0.22	OE
8PMH8K		0.2897	0.0178	1.38	0.1830	-0.0025	-0.25	GD
AZDE6X		0.2750	0.0031	0.24	0.1743	-0.0112	-1.14	XX
BEWCVJ	X	0.3020	0.0301	2.34	0.3570	0.1715	17.46	OE
DKA8HR		0.2700	-0.0019	-0.15	0.1897	0.0042	0.43	WD
F34KBP		0.2586	-0.0133	-1.04	0.1822	-0.0033	-0.33	OE
FAK3KQ		0.2567	-0.0152	-1.18	0.1900	0.0045	0.46	AA
FLEJ9R		0.2607	-0.0112	-0.87	0.1897	0.0042	0.43	ED
FNMERF		0.2620	-0.0099	-0.77	0.1820	-0.0035	-0.35	WD
GFML7M		0.2900	0.0181	1.41	0.1767	-0.0088	-0.90	OE
H89M62		0.2640	-0.0079	-0.61	0.1827	-0.0028	-0.29	OE
HQ4QTC		0.2737	0.0018	0.14	0.1893	0.0038	0.39	IC
K794XY		0.2795	0.0076	0.59	0.1833	-0.0022	-0.23	DR
K7NNZ3		0.2497	-0.0222	-1.73	0.1647	-0.0208	-2.12	OE
KPJQQY		0.2843	0.0124	0.97	0.2010	0.0155	1.58	OE
NTRAZ4		0.2610	-0.0109	-0.85	0.1853	-0.0002	-0.02	OE
NZ9CFX		0.2690	-0.0029	-0.23	0.1803	-0.0052	-0.52	OE
PQHRDR		0.2633	-0.0086	-0.67	0.1888	0.0033	0.34	WD
PZH6MZ		0.2737	0.0018	0.14	0.1831	-0.0024	-0.24	OE
RAZMVP		0.2593	-0.0126	-0.98	0.1799	-0.0056	-0.57	WD
RY34V3	X	0.2590	-0.0129	-1.00	0.2460	0.0605	6.16	OE
U3DVZL		0.2933	0.0214	1.67	0.1733	-0.0122	-1.24	WD
UVJMHG		0.2570	-0.0149	-1.16	0.1830	-0.0025	-0.25	OE
V3DCCP		0.2747	0.0028	0.22	0.1887	0.0032	0.32	OE
VELCD4		0.2613	-0.0106	-0.82	0.1947	0.0092	0.94	OE
VL6ZPL		0.2736	0.0017	0.13	0.1831	-0.0024	-0.24	IC
W9ERYC		0.2720	0.0001	0.01	0.1797	-0.0058	-0.59	GD
ZB8GKM		0.2670	-0.0049	-0.38	0.1660	-0.0195	-1.98	OE
ZW7HG4		0.2575	-0.0144	-1.12	0.1816	-0.0039	-0.40	OE

Summary Statistics

	Sample J83		Sample J84	
Grand Means	0.2719	Percent	0.1855	Percent
Stnd Dev Btwn Labs	0.0129	Percent	0.0098	Percent

Samples J83, J84 : Inco 625, Inco 625

Statistics based on 35 of 37 reporting participants

Key to Method Codes Reported by Participants

AA	Spectrometry - Atomic Absorption (AAS)	DR	Spectrometry - Direct Reading OE (DROES)
ED	X-Ray Fluorescence - Energy Dispersive (EDX)	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

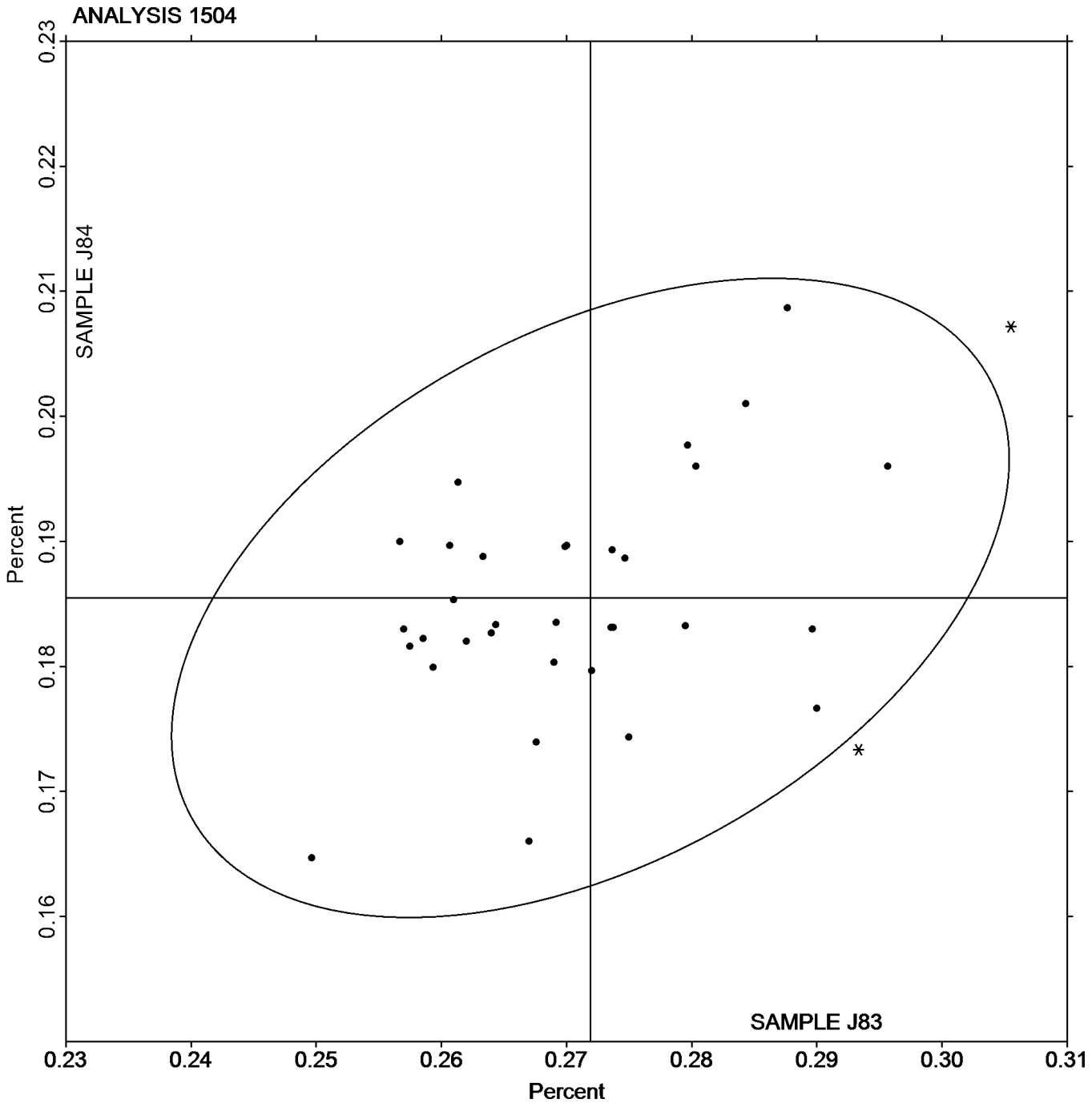
Comments on Assigned Data Flags for Test #1504

BEWCVJ (X) - Data for sample J84 are high.

RY34V3 (X) - Data for sample J84 are high.

SAMPLE J83
0.2719 Percent

SAMPLE J84
0.1855 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 1505

Nickel-based Alloy, SILICON (Si)
SILICON (Si)

Cycle 138
2nd Qtr
2022

		Sample J83			Sample J84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		0.0939	-0.0127	-0.75	0.0766	0.0080	0.49	OE
4XD4YN		0.0924	-0.0142	-0.84	0.0519	-0.0167	-1.03	XX
6HBY2B		0.1004	-0.0062	-0.37	0.0707	0.0021	0.13	OE
6HF49D	X	0.1992	0.0926	5.46	0.1905	0.1219	7.50	IC
6TBUWK		0.0926	-0.0140	-0.83	0.0500	-0.0186	-1.14	WD
6YLPY9		0.0937	-0.0130	-0.77	0.0580	-0.0106	-0.65	IC
8C48VA		0.1027	-0.0040	-0.23	0.0683	-0.0003	-0.02	OE
8PMH8K		0.1507	0.0440	2.60	0.1067	0.0381	2.34	GD
AZDE6X		0.1075	0.0008	0.05	0.0731	0.0045	0.28	IC
BEWCVJ	X	0.2700	0.1634	9.64	0.2300	0.1614	9.93	OE
DKA8HR		0.1077	0.0010	0.06	0.0677	-0.0009	-0.06	WD
F34KBP		0.1122	0.0056	0.33	0.0704	0.0018	0.11	OE
FAK3KQ		0.1100	0.0034	0.20	0.0700	0.0014	0.09	XX
FLEJ9R	*	0.0747	-0.0320	-1.89	0.0800	0.0114	0.70	ED
FNMERF		0.1023	-0.0043	-0.25	0.0590	-0.0096	-0.59	OE
GFML7M		0.1167	0.0100	0.59	0.0700	0.0014	0.09	OE
H89M62		0.1130	0.0064	0.38	0.0750	0.0064	0.39	WD
HQ4QTC		0.1027	-0.0040	-0.23	0.0620	-0.0066	-0.41	XX
K794XY		0.1170	0.0104	0.61	0.0764	0.0078	0.48	DR
K7NNZ3		0.1137	0.0070	0.41	0.0653	-0.0033	-0.20	OE
KPJQQY		0.1243	0.0176	1.04	0.0908	0.0222	1.37	XX
NZ9CFX	*	0.0593	-0.0473	-2.79	0.0167	-0.0519	-3.19	OE
PQHRDR		0.1167	0.0101	0.59	0.0801	0.0115	0.71	WD
PZH6MZ		0.1011	-0.0055	-0.32	0.0629	-0.0057	-0.35	OE
RAZMVP		0.1005	-0.0061	-0.36	0.0628	-0.0058	-0.35	WD
RY34V3		0.1320	0.0254	1.50	0.0973	0.0287	1.76	OE
U3DVZL		0.1067	0.0000	0.00	0.0700	0.0014	0.09	WD
UVJMHG		0.1150	0.0084	0.49	0.0780	0.0094	0.58	OE
V3DCCP		0.0957	-0.0110	-0.65	0.0613	-0.0073	-0.45	OE
VELCD4		0.1069	0.0002	0.01	0.0661	-0.0025	-0.15	OE
VL6ZPL		0.1066	0.0000	0.00	0.0680	-0.0006	-0.03	IC
W9ERYC		0.1113	0.0047	0.28	0.0763	0.0077	0.48	GD
Z8MLPH		0.1340	0.0274	1.61	0.0947	0.0261	1.60	OE
ZB8GKM		0.1140	0.0074	0.43	0.0630	-0.0056	-0.34	OE
ZW7HG4		0.0656	-0.0410	-2.42	0.0408	-0.0278	-1.71	OE
ZZC7CG		0.1003	-0.0063	-0.37	0.0637	-0.0049	-0.30	WD

Summary Statistics

	Sample J83		Sample J84	
Grand Means	0.1066	Percent	0.0686	Percent
Stnd Dev Btwn Labs	0.0170	Percent	0.0163	Percent

Samples J83, J84 : Inco 625, Inco 625

Statistics based on 33 of 36 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	ED	X-Ray Fluorescence - Energy Dispersive (EDX)
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		

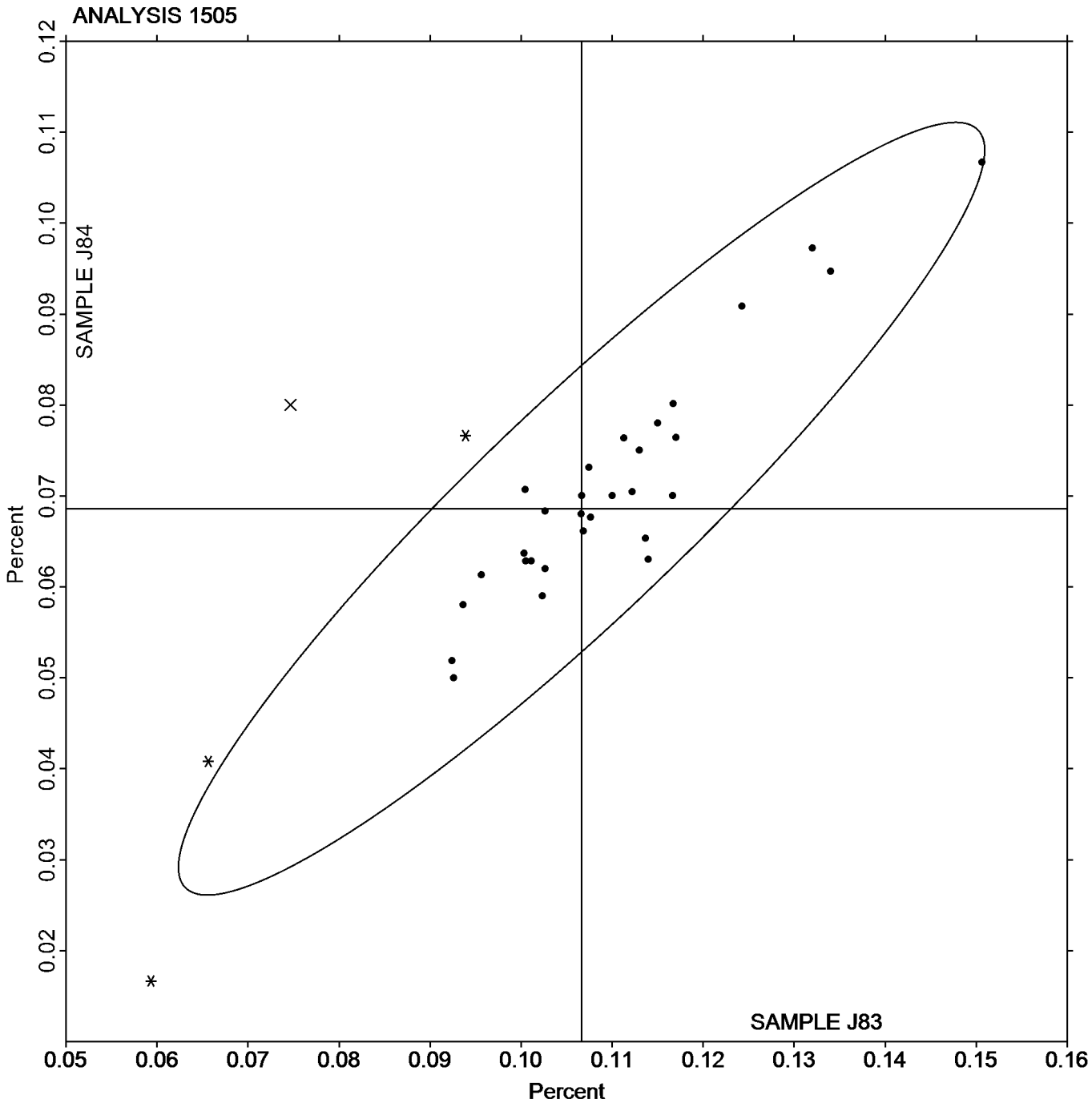
Comments on Assigned Data Flags for Test #1505

6HF49D (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

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

SAMPLE J83
0.1066 Percent

SAMPLE J84
0.0686 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 1506

Nickel-based Alloy, NIOBIUM (Nb)
NIOBIUM (Nb)

Cycle 138
2nd Qtr
2022

		Sample J83			Sample J84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		3.347	-0.008	-0.10	3.510	-0.049	-0.57	OE
4XD4YN		3.538	0.183	2.40	3.754	0.194	2.25	XX
4Y8REX		3.330	-0.025	-0.32	3.538	-0.022	-0.25	IC
6HBY2B		3.473	0.119	1.56	3.643	0.084	0.97	OE
6HF49D	X	3.319	-0.036	-0.47	3.820	0.260	3.01	IC
6TBUWK		3.437	0.083	1.08	3.645	0.086	0.99	WD
6YLPY9		3.327	-0.028	-0.36	3.570	0.011	0.13	IC
8C48VA		3.372	0.017	0.23	3.551	-0.008	-0.09	OE
8PMH8K		3.337	-0.017	-0.22	3.521	-0.039	-0.45	GD
BEWCVJ		3.365	0.011	0.14	3.622	0.063	0.72	XR
DKA8HR		3.296	-0.058	-0.76	3.517	-0.043	-0.49	WD
F34KBP		3.407	0.053	0.69	3.536	-0.024	-0.27	OE
FAK3KQ		3.367	0.012	0.16	3.580	0.021	0.24	IC
FLEJ9R		3.246	-0.109	-1.42	3.433	-0.126	-1.46	ED
FNMERF		3.317	-0.037	-0.48	3.524	-0.035	-0.41	WD
GFML7M		3.353	-0.001	-0.01	3.570	0.011	0.12	OE
H89M62		3.419	0.064	0.84	3.624	0.065	0.75	WD
HQ4QTC		3.333	-0.022	-0.28	3.507	-0.052	-0.61	IC
K794XY		3.394	0.040	0.52	3.582	0.022	0.26	DR
K7NNZ3	*	3.173	-0.181	-2.37	3.309	-0.251	-2.90	OE
KPJQQY		3.373	0.019	0.25	3.547	-0.013	-0.15	OE
NTRAZ4	X	3.446	0.092	1.20	4.424	0.865	10.00	OE
NZ9CFX		3.383	0.029	0.38	3.593	0.034	0.39	OE
PQHRDR		3.337	-0.017	-0.22	3.579	0.019	0.22	WD
PZH6MZ		3.373	0.019	0.25	3.615	0.056	0.64	WD
RAZMVP		3.527	0.173	2.26	3.781	0.222	2.57	WD
U3DVZL		3.303	-0.051	-0.67	3.563	0.004	0.05	WD
UVJMHG		3.205	-0.149	-1.95	3.411	-0.148	-1.71	OE
V3DCCP		3.365	0.011	0.14	3.578	0.019	0.22	WD
VELCD4		3.335	-0.020	-0.26	3.555	-0.005	-0.05	OE
VL6ZPL		3.316	-0.039	-0.51	3.511	-0.049	-0.56	IC
W9ERYC		3.383	0.029	0.38	3.570	0.011	0.12	GD
ZW7HG4		3.329	-0.025	-0.33	3.515	-0.044	-0.51	OE
ZZC7CG		3.276	-0.079	-1.03	3.547	-0.013	-0.15	WD

Summary Statistics

	Sample J83		Sample J84	
Grand Means	3.354	Percent	3.559	Percent
Stnd Dev Btwn Labs	0.076	Percent	0.087	Percent

Samples J83, J84 : Inco 625, Inco 625

Statistics based on 32 of 34 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	ED	X-Ray Fluorescence - Energy Dispersive (EDX)
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

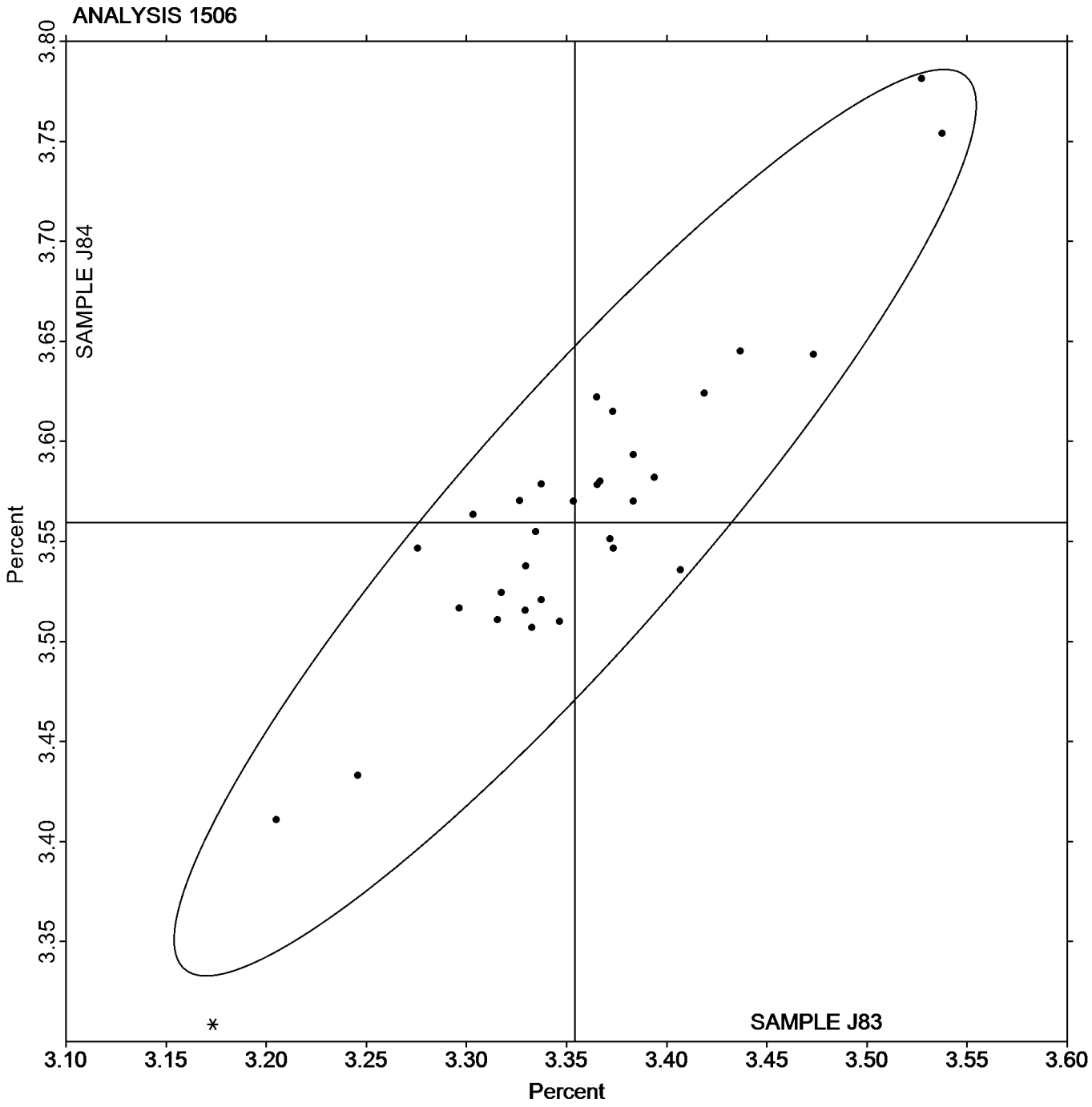
Comments on Assigned Data Flags for Test #1506

6HF49D (X) - Data for sample J84 are high.

NTRAZ4 (X) - Data for sample J84 are high.

SAMPLE J83
3.354 Percent

SAMPLE J84
3.559 Percent



		Sample J83			Sample J84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		0.2913	-0.0155	-0.87	0.2417	-0.0085	-0.50	OE
4UQV4T		0.2968	-0.0101	-0.57	0.2525	0.0024	0.14	IC
4XD4YN		0.2842	-0.0227	-1.27	0.2265	-0.0237	-1.39	XX
4Y8REX		0.3020	-0.0049	-0.27	0.2513	0.0012	0.07	IC
6HBY2B		0.2873	-0.0195	-1.09	0.2407	-0.0095	-0.56	OE
6HF49D		0.3014	-0.0054	-0.30	0.2784	0.0282	1.66	IC
6TBUWK		0.3286	0.0217	1.22	0.2611	0.0109	0.64	WD
6YLPY9		0.3007	-0.0062	-0.35	0.2427	-0.0075	-0.44	IC
8C48VA		0.3057	-0.0012	-0.07	0.2443	-0.0058	-0.34	OE
8PMH8K		0.3303	0.0235	1.32	0.2600	0.0098	0.58	GD
AZDE6X	*	0.2623	-0.0445	-2.49	0.2040	-0.0462	-2.72	IC
BEWCVJ		0.3020	-0.0049	-0.27	0.2230	-0.0272	-1.60	XR
DKA8HR		0.3253	0.0185	1.04	0.2563	0.0062	0.36	WD
F34KBP		0.3092	0.0023	0.13	0.2581	0.0079	0.47	OE
FAK3KQ		0.3067	-0.0002	-0.01	0.2600	0.0098	0.58	XX
FLEJ9R		0.2730	-0.0339	-1.90	0.2290	-0.0212	-1.25	ED
FNMERF		0.3180	0.0111	0.62	0.2533	0.0032	0.19	WD
GFML7M		0.3100	0.0031	0.18	0.2500	-0.0002	-0.01	OE
H89M62		0.3287	0.0218	1.22	0.2590	0.0088	0.52	WD
HQ4QTC		0.3113	0.0045	0.25	0.2597	0.0095	0.56	IC
K794XY		0.3096	0.0027	0.15	0.2363	-0.0139	-0.82	DR
K7NNZ3		0.2620	-0.0449	-2.51	0.2083	-0.0418	-2.46	OE
KPJQQY		0.3227	0.0158	0.89	0.2693	0.0192	1.13	OE
NTRAZ4		0.3210	0.0141	0.79	0.2647	0.0145	0.85	OE
NZ9CFX		0.3197	0.0128	0.72	0.2657	0.0155	0.91	OE
PQHRDR		0.3169	0.0101	0.57	0.2393	-0.0109	-0.64	WD
PZH6MZ		0.3178	0.0110	0.62	0.2688	0.0187	1.10	OE
RAZMVP		0.2983	-0.0086	-0.48	0.2545	0.0043	0.25	WD
RY34V3		0.2913	-0.0155	-0.87	0.2457	-0.0045	-0.27	OE
U3DVZL		0.3267	0.0198	1.11	0.2533	0.0032	0.19	WD
UVJMHG		0.3400	0.0331	1.86	0.2870	0.0368	2.17	OE
V3DCCP		0.2963	-0.0105	-0.59	0.2370	-0.0132	-0.78	WD
VELCD4		0.3148	0.0079	0.44	0.2480	-0.0022	-0.13	OE
VL6ZPL		0.2999	-0.0070	-0.39	0.2533	0.0032	0.19	IC
W9ERYC		0.2993	-0.0075	-0.42	0.2573	0.0072	0.42	GD
ZB8GKM		0.3100	0.0031	0.18	0.2540	0.0038	0.23	OE
ZW7HG4		0.3162	0.0094	0.53	0.2466	-0.0036	-0.21	OE
ZZC7CG		0.3230	0.0161	0.91	0.2657	0.0155	0.91	WD

Summary Statistics

	Sample J83		Sample J84	
Grand Means	0.3069	Percent	0.2502	Percent
Stnd Dev Btwn Labs	0.0178	Percent	0.0170	Percent

Samples J83, J84 : Inco 625, Inco 625

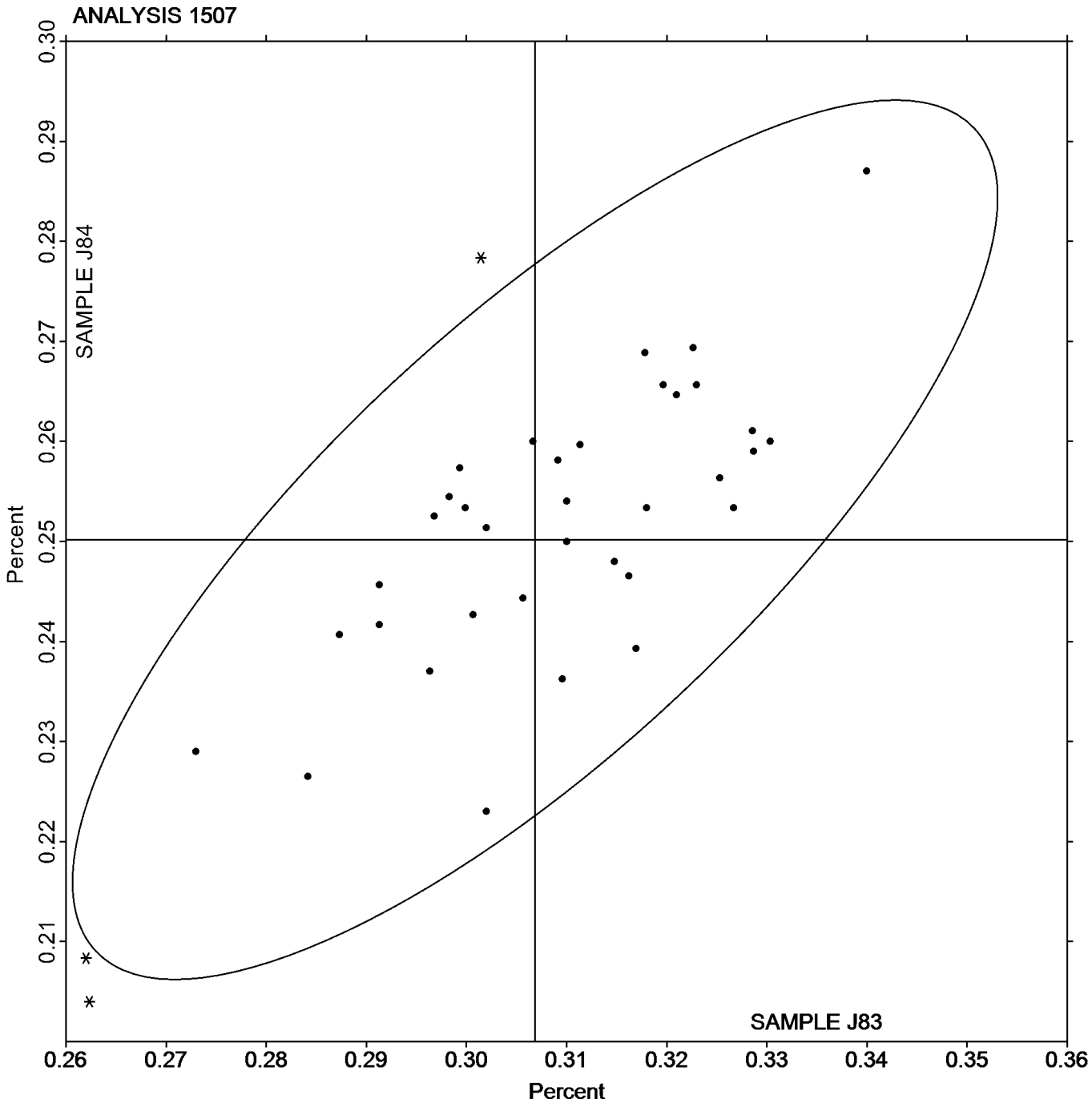
Statistics based on 38 of 38 reporting participants

Key to Method Codes Reported by Participants

DR	Spectrometry - Direct Reading OE (DROES)	ED	X-Ray Fluorescence - Energy Dispersive (EDX)
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

SAMPLE J83
0.3069 Percent

SAMPLE J84
0.2502 Percent



		Sample J83			Sample J84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		59.40	-0.09	-0.19	60.63	-0.01	-0.02	OE
4XD4YN		58.65	-0.84	-1.77	59.59	-1.06	-2.09	XX
6HBY2B		59.38	-0.11	-0.24	60.66	0.02	0.03	OE
6HF49D		59.55	0.05	0.12	60.44	-0.21	-0.41	IC
6TBUWK		59.74	0.25	0.52	60.89	0.24	0.48	WD
6YLPY9		59.39	-0.10	-0.21	60.72	0.08	0.16	IC
8C48VA		59.84	0.35	0.72	60.97	0.33	0.64	OE
8PMH8K		59.47	-0.02	-0.05	60.50	-0.14	-0.29	GD
AZDE6X	X	61.40	1.91	4.01	62.80	2.16	4.27	XX
BEWCVJ		59.15	-0.34	-0.72	60.52	-0.12	-0.25	XX
DKA8HR		59.70	0.21	0.44	60.76	0.12	0.23	WD
F34KBP		59.27	-0.22	-0.46	60.54	-0.11	-0.22	XR
FAK3KQ		59.42	-0.07	-0.14	60.54	-0.10	-0.21	VO
FLEJ9R		59.70	0.21	0.44	60.97	0.32	0.64	ED
FNMERF		59.55	0.06	0.12	60.72	0.08	0.16	WD
GFML7M		60.56	1.07	2.24	61.78	1.14	2.25	OE
HQ4QTC		59.51	0.02	0.04	60.54	-0.10	-0.21	XX
K794XY		59.41	-0.08	-0.16	60.48	-0.17	-0.33	DR
K7NNZ3		59.23	-0.26	-0.56	60.74	0.10	0.19	OE
KPJQQY		59.97	0.48	1.00	61.20	0.56	1.10	OE
NTRAZ4	*	58.94	-0.55	-1.16	61.01	0.37	0.72	OE
NZ9CFX	*	58.14	-1.35	-2.83	59.18	-1.47	-2.90	OE
PQHRDR		60.48	0.99	2.07	61.36	0.71	1.41	WD
PZH6MZ		59.75	0.26	0.55	60.90	0.25	0.50	WD
RAZMVP		58.47	-1.02	-2.13	59.52	-1.12	-2.23	WD
RY34V3		59.50	0.01	0.02	60.73	0.09	0.18	OE
U3DVZL		59.48	-0.01	-0.02	60.52	-0.13	-0.25	WD
UVJMHG		59.73	0.24	0.50	60.70	0.06	0.11	OE
V3DCCP		59.58	0.09	0.18	60.87	0.22	0.44	WD
VELCD4		59.77	0.28	0.59	60.95	0.31	0.61	OE
VL6ZPL		59.70	0.21	0.43	60.48	-0.16	-0.33	IC
W9ERYC		59.73	0.24	0.51	61.00	0.36	0.70	GD
Z8MLPH	X	58.37	-1.12	-2.36	58.47	-2.17	-4.31	OE
ZB8GKM		59.08	-0.41	-0.86	59.99	-0.65	-1.30	OE
ZW7HG4		59.05	-0.44	-0.92	60.76	0.11	0.22	OE
ZZC7CG		59.87	0.37	0.78	61.14	0.50	0.98	WD

Summary Statistics

	Sample J83		Sample J84	
Grand Means	59.49	Percent	60.64	Percent
Stnd Dev Btwn Labs	0.48	Percent	0.50	Percent

Samples J83, J84 : Inco 625, Inco 625

Statistics based on 33 of 36 reporting participants

Key to Method Codes Reported by Participants

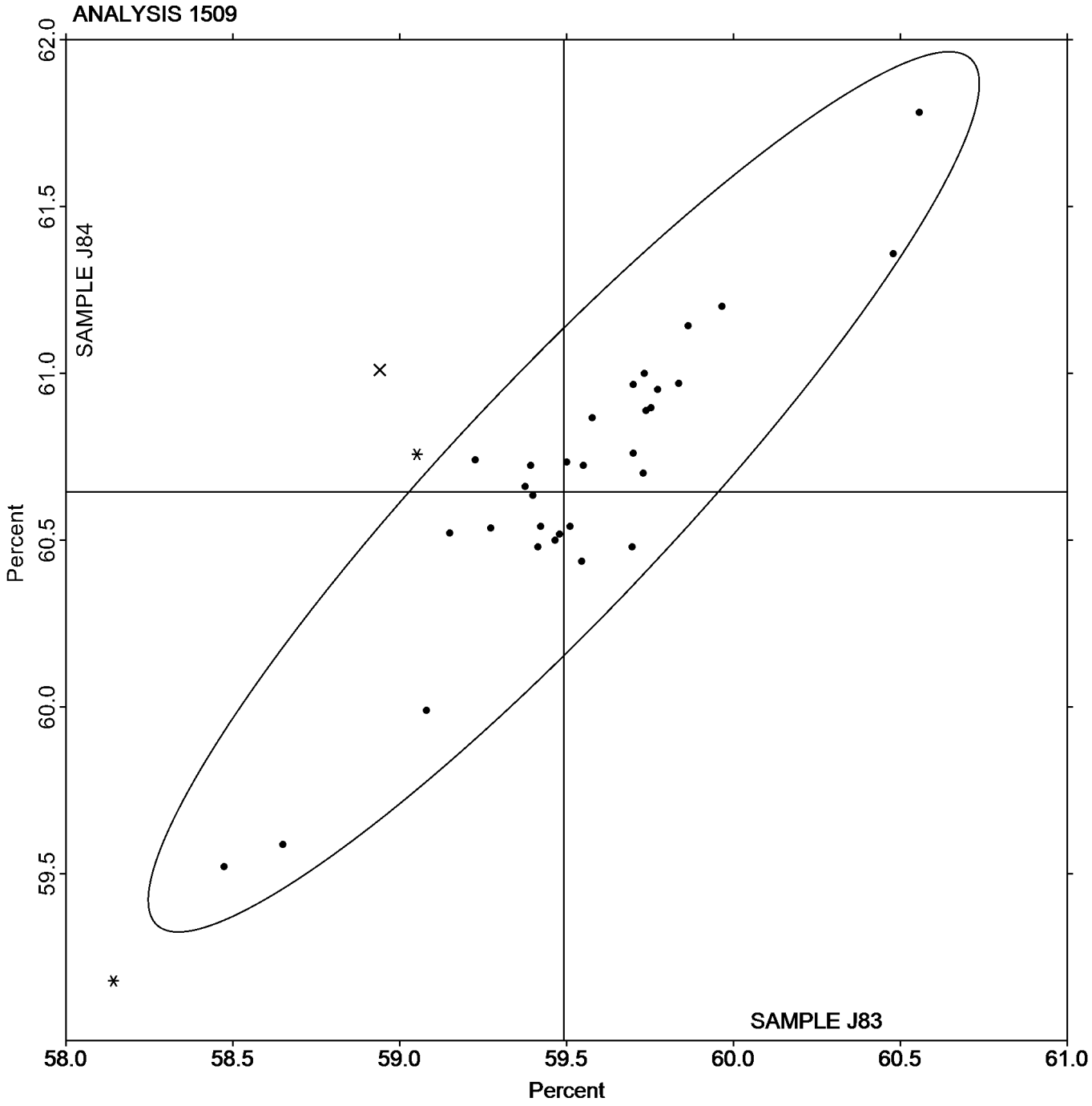
DR	Spectrometry - Direct Reading OE (DROES)	ED	X-Ray Fluorescence - Energy Dispersive (EDX)
GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	VO	Volumetric
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence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

Comments on Assigned Data Flags for Test #1509

AZDE6X (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample J83.

Z8MLPH (X) - Data for sample J84 are low.

SAMPLE J83	SAMPLE J84
59.49 Percent	60.64 Percent



		Sample A83			Sample A84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HNCZH		0.0119	-0.0010	-0.40	0.0319	-0.0012	-0.46	OE
2HRC76		0.0153	0.0024	1.01	0.0355	0.0024	0.92	OE
3PJNPJ		0.0126	-0.0003	-0.11	0.0326	-0.0005	-0.20	IC
6HDNAE		0.0124	-0.0005	-0.21	0.0317	-0.0014	-0.55	OE
7XNR7T		0.0133	0.0004	0.19	0.0352	0.0021	0.81	OE
7ZQURN		0.0137	0.0008	0.35	0.0358	0.0027	1.07	OE
84ARUP		0.0114	-0.0015	-0.63	0.0309	-0.0022	-0.86	OE
8C48VA		0.0137	0.0008	0.36	0.0327	-0.0004	-0.14	OE
8DBPPY	X	0.0410	0.0281	11.93	0.0530	0.0199	7.76	GD
96WX2M		0.0115	-0.0014	-0.57	0.0299	-0.0032	-1.24	OE
9JRPCP		0.0131	0.0002	0.08	0.0344	0.0013	0.51	OE
B6B722		0.0110	-0.0019	-0.80	0.0297	-0.0034	-1.34	OE
CB8PCV	X	0.0105	-0.0024	-1.01	0.0870	0.0539	21.02	OE
DABFVY		0.0121	-0.0008	-0.33	0.0320	-0.0011	-0.43	OE
DW4N8T		0.0157	0.0028	1.18	0.0377	0.0046	1.78	OE
EJWVM8		0.00960	-0.0033	-1.39	0.0304	-0.0027	-1.07	OE
EPNXQ8		0.0144	0.0016	0.66	0.0354	0.0023	0.90	OE
F29934		0.00980	-0.0031	-1.31	0.0301	-0.0030	-1.18	OE
F34KBP		0.0136	0.0007	0.30	0.0343	0.0012	0.45	OE
FLEJ9R		0.0154	0.0025	1.08	0.0369	0.0038	1.47	ED
GCAT93	X	0.00100	-0.0119	-5.04	0.0230	-0.0101	-3.94	OE
HQ4QTC		0.0133	0.0004	0.19	0.0327	-0.0004	-0.17	IC
KPJQQY		0.00967	-0.0032	-1.37	0.0299	-0.0032	-1.24	OE
LJVDHJ		0.0117	-0.0012	-0.52	0.0330	-0.0001	-0.04	OE
LK3TRB		0.0156	0.0027	1.15	0.0342	0.0011	0.44	OE
LNKZ2V		0.0139	0.0010	0.45	0.0328	-0.0003	-0.13	IC
NZ9CFX		0.0140	0.0011	0.47	0.0320	-0.0011	-0.43	OE
P63ZH6		0.0143	0.0014	0.60	0.0357	0.0026	1.01	OE
PYQ7BM		0.0136	0.0007	0.32	0.0337	0.0006	0.25	OE
QW3DBH		0.0143	0.0014	0.60	0.0348	0.0017	0.65	OE
RKYEL3		0.0125	-0.0004	-0.18	0.0330	-0.0001	-0.05	OE
T6LQ3D		0.0103	-0.0026	-1.08	0.0323	-0.0008	-0.30	OE
TH9E2D	X	0.00500	-0.0079	-3.35	0.00500	-0.0281	-10.96	OE
TL9PWD		0.0143	0.0014	0.60	0.0338	0.0007	0.27	IC
U3DVZL	*	0.0200	0.0071	3.02	0.0400	0.0069	2.69	OE
UKF34A		0.0154	0.0025	1.05	0.0345	0.0014	0.55	OE
VELCD4		0.0130	0.0001	0.05	0.0335	0.0004	0.16	OE
W39UVK		0.00960	-0.0033	-1.39	0.0287	-0.0044	-1.73	OE
WR8ATT		0.0134	0.0005	0.22	0.0341	0.0010	0.38	IC
X4GW9N	*	0.00883	-0.0041	-1.72	0.0341	0.0010	0.39	OE
ZKZ6PJ	*	0.00600	-0.0069	-2.92	0.0270	-0.0061	-2.38	OE
ZQ63V3		0.0110	-0.0019	-0.80	0.0317	-0.0014	-0.56	OE
ZW7HG4		0.0142	0.0013	0.54	0.0352	0.0021	0.83	OE
ZZBHPB		0.0118	-0.0011	-0.47	0.0315	-0.0016	-0.64	OE

Summary Statistics

	Sample A83		Sample A84	
Grand Means	0.0129	Percent	0.0331	Percent
Stnd Dev Btwn Labs	0.0024	Percent	0.0026	Percent

Samples A83, A84 : AA6060, AA6060

Statistics based on 39 of 44 reporting participants

Key to Method Codes Reported by Participants

ED	X-Ray Fluorescence - Energy Dispersive (EDX)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)

Comments on Assigned Data Flags for Test #1540

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

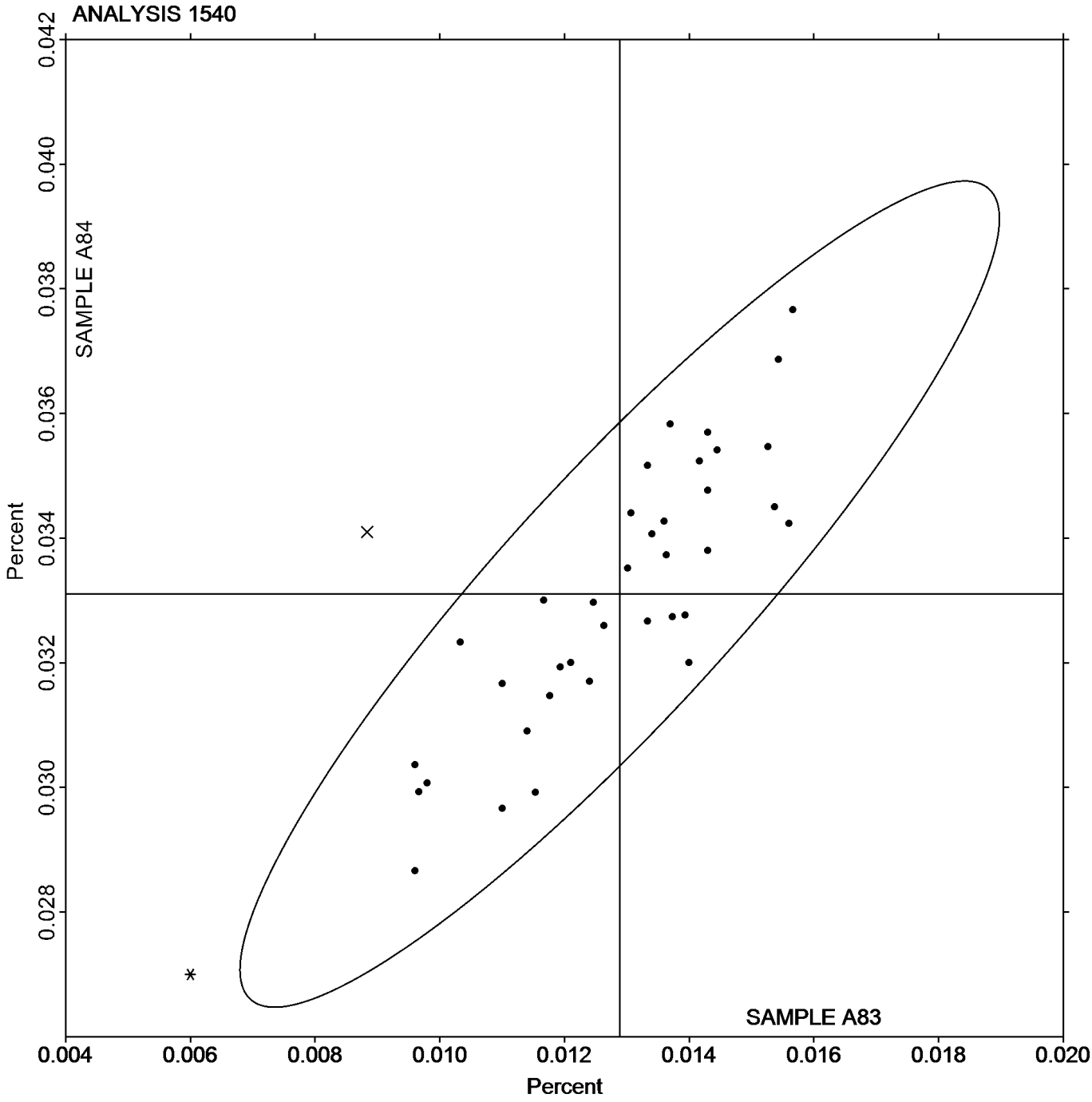
CB8PCV (X) - Data for sample A84 are high.

GCAT93 (X) - Data for both samples are low. Possible Systematic Error.

TH9E2D (X) - Data for both samples are low. Possible Systematic Error.

SAMPLE A83
0.0129 Percent

SAMPLE A84
0.0331 Percent



		Sample A83			Sample A84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HNCZH	X	0.0366	0.0218	13.68	0.0423	0.0199	11.52	OE
2HRC76		0.0157	0.0009	0.56	0.0229	0.0005	0.27	OE
3PJNPJ		0.0143	-0.0005	-0.30	0.0216	-0.0008	-0.45	IC
6HDNAE		0.0149	0.0001	0.06	0.0231	0.0007	0.40	OE
7XNR7T		0.0144	-0.0004	-0.25	0.0226	0.0002	0.11	OE
7ZQURN		0.0144	-0.0004	-0.23	0.0222	-0.0002	-0.14	OE
84ARUP		0.0145	-0.0002	-0.15	0.0220	-0.0004	-0.22	OE
8C48VA		0.0142	-0.0006	-0.38	0.0217	-0.0007	-0.41	OE
8DBPPY		0.0150	0.0002	0.14	0.0240	0.0016	0.92	GD
96WX2M		0.0132	-0.0016	-1.02	0.0204	-0.0020	-1.18	OE
9JRPCP		0.0150	0.0002	0.12	0.0226	0.0002	0.09	OE
B6B722		0.0137	-0.0011	-0.69	0.0210	-0.0014	-0.81	OE
CB8PCV		0.0180	0.0032	2.02	0.0250	0.0026	1.50	OE
DABFVY	X	0.0213	0.0065	4.09	0.0270	0.0046	2.64	OE
DW4N8T		0.0173	0.0026	1.60	0.0253	0.0029	1.69	OE
EJWVM8		0.0116	-0.0031	-1.97	0.0192	-0.0032	-1.87	OE
EPNXQ8		0.0157	0.0009	0.57	0.0233	0.0009	0.53	OE
F29934		0.0142	-0.0006	-0.38	0.0224	0.0000	0.02	OE
F34KBP		0.0175	0.0027	1.69	0.0233	0.0009	0.50	OE
FLEJ9R		0.0180	0.0033	2.04	0.0237	0.0013	0.73	ED
GCAT93		0.0120	-0.0028	-1.74	0.0193	-0.0031	-1.78	OE
HQ4QTC		0.0140	-0.0008	-0.48	0.0213	-0.0011	-0.62	IC
KPJQQY		0.0154	0.0006	0.39	0.0220	-0.0004	-0.25	OE
LJVDHJ		0.0130	-0.0018	-1.11	0.0200	-0.0024	-1.39	OE
LK3TRB		0.0164	0.0017	1.04	0.0246	0.0022	1.25	OE
LNKZ2V		0.0142	-0.0005	-0.34	0.0219	-0.0005	-0.27	IC
NCJ9EN		0.0150	0.0003	0.16	0.0237	0.0013	0.75	OE
NZ9CFX		0.0163	0.0016	0.98	0.0240	0.0016	0.92	OE
P63ZH6		0.0159	0.0012	0.73	0.0258	0.0034	1.95	OE
PYQ7BM		0.0153	0.0005	0.31	0.0234	0.0010	0.58	OE
QW3DBH		0.0142	-0.0006	-0.36	0.0219	-0.0005	-0.27	OE
RKYEL3		0.0142	-0.0005	-0.34	0.0220	-0.0004	-0.22	OE
T6LQ3D		0.0147	-0.0001	-0.07	0.0220	-0.0004	-0.23	OE
TH9E2D	X	0.0100	-0.0048	-2.99	0.0100	-0.0124	-7.18	OE
TL9PWD		0.0128	-0.0020	-1.26	0.0207	-0.0017	-1.01	IC
U3DVZL	X	0.0100	-0.0048	-2.99	0.0200	-0.0024	-1.39	OE
UKF34A	X	0.00103	-0.0137	-8.61	0.0117	-0.0107	-6.20	OE
VELCD4		0.0146	-0.0001	-0.08	0.0225	0.0001	0.08	OE
W39UVK		0.0137	-0.0011	-0.69	0.0200	-0.0024	-1.39	OE
WR8ATT		0.0141	-0.0006	-0.40	0.0229	0.0005	0.27	XX
X4GW9N		0.0172	0.0024	1.52	0.0238	0.0014	0.81	OE
ZKZ6PJ		0.0170	0.0022	1.40	0.0260	0.0036	2.08	OE
ZQ63V3		0.0123	-0.0024	-1.53	0.0190	-0.0034	-1.97	OE
ZW7HG4		0.0124	-0.0024	-1.49	0.0208	-0.0016	-0.95	OE
ZZBHPB		0.0146	-0.0001	-0.09	0.0224	0.0000	0.00	OE

Summary Statistics

	Sample A83		Sample A84	
Grand Means	0.0148	Percent	0.0224	Percent
Stnd Dev Btwn Labs	0.0016	Percent	0.0017	Percent

Samples A83, A84 : AA6060, AA6060

Statistics based on 40 of 45 reporting participants

Key to Method Codes Reported by Participants

ED	X-Ray Fluorescence - Energy Dispersive (EDX)	GD	Spectrometry - Glow Discharge (GDS)
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 #1541

2HNCZH (X) - Data for both samples are high. Possible Systematic Error.

DABFVY (X) - Data for sample A83 are high.

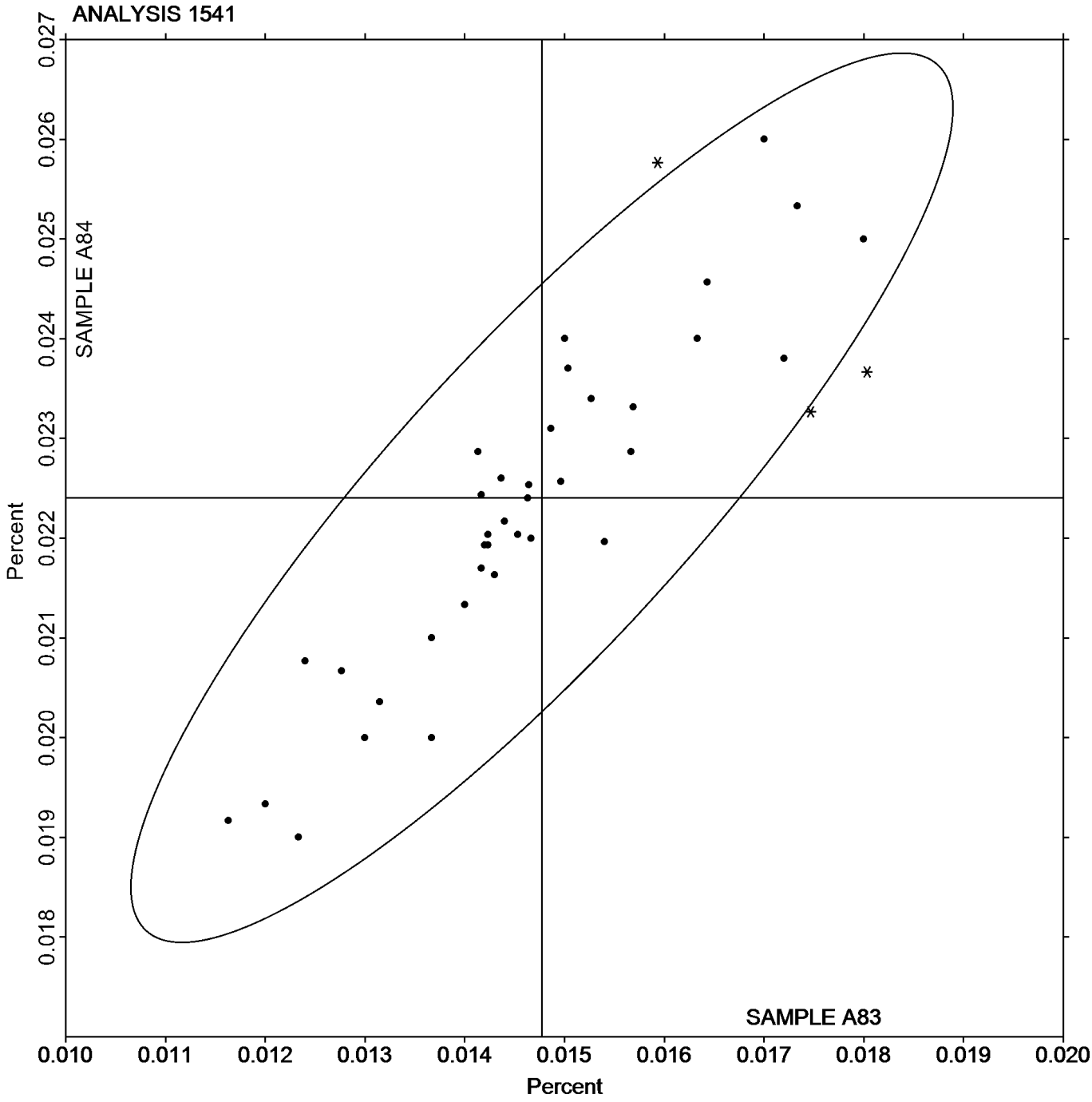
TH9E2D (X) - Data for both samples are low. Possible Systematic Error.

U3DVZL (X) - Data for sample A83 are low.

UKF34A (X) - Data for both samples are low. Possible Systematic Error.

SAMPLE A83
0.0148 Percent

SAMPLE A84
0.0224 Percent



		Sample A83			Sample A84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HNCZH		0.1993	-0.0052	-0.85	0.3597	-0.0105	-1.10	OE
2HRC76		0.2047	0.0001	0.02	0.3743	0.0041	0.43	OE
3PJNPJ		0.1993	-0.0052	-0.85	0.3680	-0.0022	-0.23	IC
6HDNAE		0.1947	-0.0099	-1.62	0.3573	-0.0129	-1.34	OE
7XNR7T		0.2077	0.0031	0.52	0.3747	0.0045	0.47	OE
7ZQURN		0.1978	-0.0068	-1.11	0.3604	-0.0098	-1.02	OE
84ARUP		0.1984	-0.0061	-1.00	0.3657	-0.0045	-0.47	OE
8C48VA		0.2077	0.0031	0.52	0.3783	0.0081	0.85	OE
8DBPPY	X	0.2260	0.0215	3.54	0.4330	0.0628	6.55	GD
96WX2M		0.2154	0.0109	1.79	0.3778	0.0076	0.80	OE
9JRPCP		0.2040	-0.0005	-0.09	0.3733	0.0031	0.33	OE
B6B722		0.2153	0.0108	1.78	0.3913	0.0211	2.20	OE
CB8PCV		0.1975	-0.0070	-1.16	0.3560	-0.0142	-1.48	OE
DABFVY		0.2064	0.0019	0.31	0.3712	0.0010	0.10	OE
DW4N8T		0.2067	0.0021	0.35	0.3660	-0.0042	-0.44	OE
EJWVM8		0.2013	-0.0032	-0.52	0.3683	-0.0019	-0.19	OE
EPNXQ8		0.2080	0.0034	0.57	0.3660	-0.0042	-0.44	OE
F29934		0.2105	0.0060	0.99	0.3779	0.0077	0.80	OE
F34KBP		0.2167	0.0122	2.01	0.3785	0.0083	0.86	OE
FLEJ9R		0.2033	-0.0012	-0.20	0.3720	0.0018	0.19	ED
GCAT93		0.2117	0.0071	1.18	0.3673	-0.0029	-0.30	OE
HQ4QTC		0.2027	-0.0019	-0.30	0.3607	-0.0095	-0.99	IC
KPJQQY		0.2187	0.0141	2.33	0.3950	0.0248	2.59	OE
LJVDHJ		0.1970	-0.0075	-1.24	0.3587	-0.0115	-1.20	OE
LK3TRB		0.1947	-0.0099	-1.62	0.3627	-0.0075	-0.79	OE
LNKZ2V		0.2067	0.0021	0.35	0.3810	0.0108	1.13	IC
NCJ9EN		0.1994	-0.0051	-0.84	0.3635	-0.0067	-0.70	OE
NZ9CFX		0.2000	-0.0045	-0.74	0.3633	-0.0069	-0.72	OE
P63ZH6		0.2017	-0.0029	-0.47	0.3630	-0.0072	-0.75	OE
PYQ7BM		0.2013	-0.0032	-0.53	0.3626	-0.0076	-0.80	OE
QW3DBH		0.2160	0.0115	1.89	0.3893	0.0191	1.99	OE
RKYEL3		0.2031	-0.0014	-0.23	0.3662	-0.0040	-0.41	OE
T6LQ3D	*	0.2000	-0.0045	-0.74	0.3900	0.0198	2.06	OE
TH9E2D	X	0.1067	-0.0979	-16.11	0.1167	-0.2535	-26.43	OE
TL9PWD		0.2017	-0.0029	-0.47	0.3730	0.0028	0.29	IC
U3DVZL		0.2100	0.0055	0.90	0.3900	0.0198	2.06	OE
UKF34A		0.2040	-0.0006	-0.09	0.3595	-0.0107	-1.12	OE
VELCD4		0.2032	-0.0013	-0.21	0.3726	0.0024	0.25	OE
W39UVK		0.2007	-0.0039	-0.63	0.3633	-0.0069	-0.72	OE
WR8ATT		0.2020	-0.0025	-0.41	0.3660	-0.0042	-0.44	XX
X4GW9N		0.2030	-0.0015	-0.25	0.3707	0.0005	0.05	OE
ZKZ6PJ	X	0.1900	-0.0145	-2.39	0.3333	-0.0369	-3.84	OE
ZQ63V3	X	0.2400	0.0355	5.84	0.4200	0.0498	5.19	OE
ZW7HG4		0.2023	-0.0022	-0.37	0.3696	-0.0006	-0.07	OE
ZZBHPB		0.2063	0.0018	0.30	0.3733	0.0031	0.33	OE

Summary Statistics

	Sample A83		Sample A84	
Grand Means	0.2045	Percent	0.3702	Percent
Stnd Dev Btwn Labs	0.0061	Percent	0.0096	Percent

Samples A83, A84 : AA6060, AA6060

Statistics based on 40 of 45 reporting participants

Key to Method Codes Reported by Participants

ED	X-Ray Fluorescence - Energy Dispersive (EDX)	GD	Spectrometry - Glow Discharge (GDS)
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 #1542

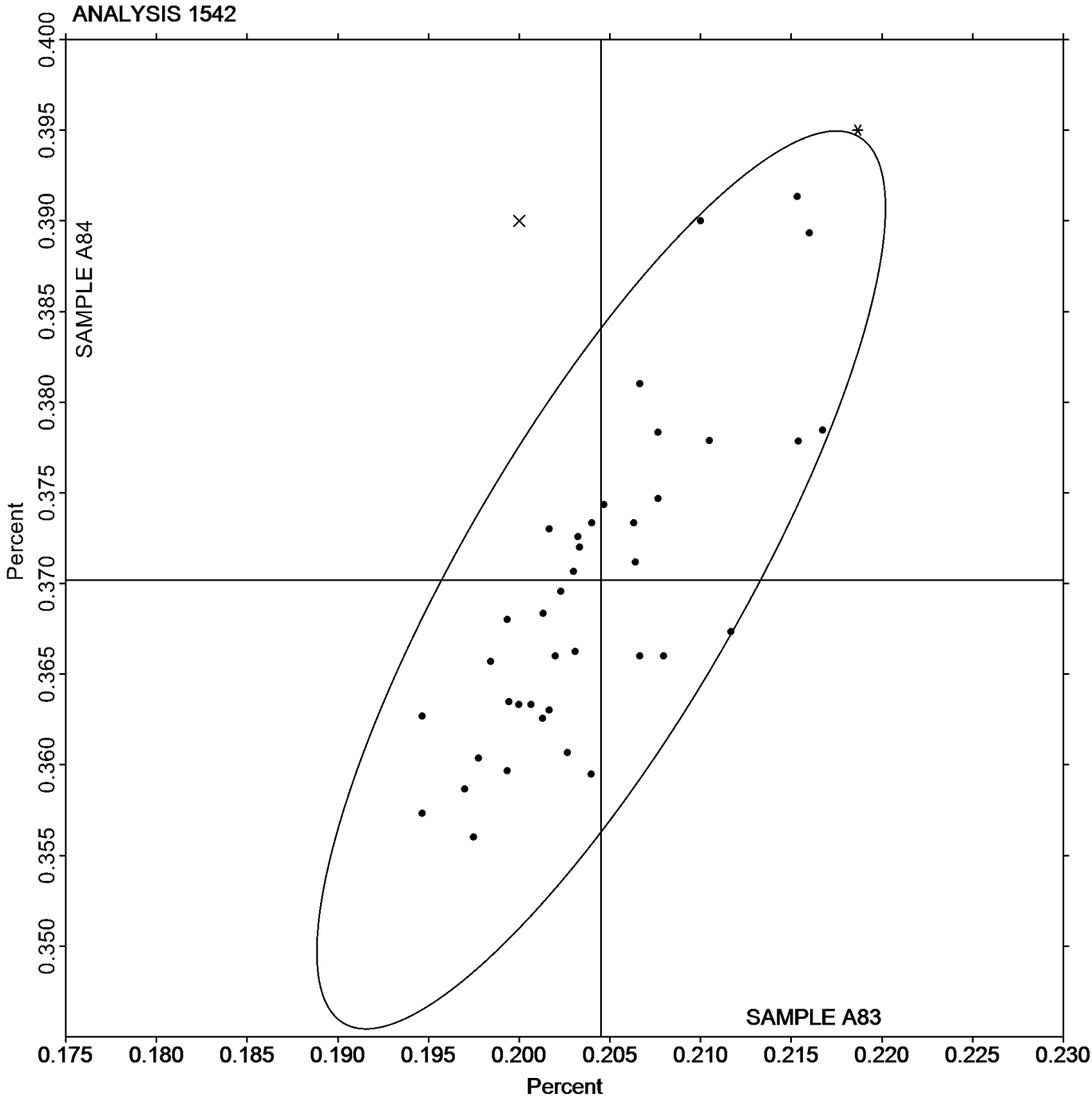
8DBPPY (X) - Data for both samples are high.

TH9E2D (X) - Data for both samples are low. Inconsistent within the determinations of sample A83.

ZKZ6PJ (X) - Data for sample A84 are low.

ZQ63V3 (X) - Data for both samples are high.

SAMPLE A83	SAMPLE A84
0.2045 Percent	0.3702 Percent



		Sample A83			Sample A84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HNCZH		0.4187	0.0047	0.47	0.5003	0.0055	0.52	OE
2HRC76		0.4107	-0.0033	-0.33	0.4967	0.0018	0.17	OE
3PJNPJ		0.4067	-0.0073	-0.72	0.4903	-0.0045	-0.43	IC
6HDNAE		0.4080	-0.0060	-0.59	0.4893	-0.0055	-0.52	OE
7XNR7T		0.4153	0.0014	0.14	0.5033	0.0085	0.81	OE
7ZQURN		0.4020	-0.0119	-1.19	0.4846	-0.0102	-0.97	OE
84ARUP		0.4307	0.0168	1.67	0.5117	0.0168	1.60	OE
8C48VA		0.4140	0.0000	0.00	0.4927	-0.0022	-0.21	OE
8DBPPY		0.4190	0.0050	0.50	0.4910	-0.0038	-0.36	GD
96WX2M		0.4122	-0.0017	-0.17	0.4901	-0.0047	-0.45	OE
9JRPCP		0.4043	-0.0096	-0.96	0.4907	-0.0042	-0.40	OE
B6B722	X	0.4097	-0.0043	-0.43	0.5077	0.0128	1.22	OE
CB8PCV	X	0.3605	-0.0535	-5.31	0.4405	-0.0543	-5.16	OE
DABFVY		0.4254	0.0114	1.13	0.5049	0.0100	0.95	OE
DW4N8T		0.4087	-0.0053	-0.53	0.4863	-0.0085	-0.81	OE
EJWVM8		0.4100	-0.0040	-0.39	0.4933	-0.0015	-0.14	OE
EPNXQ8		0.4306	0.0167	1.65	0.4999	0.0050	0.48	OE
F29934		0.4181	0.0041	0.41	0.5028	0.0080	0.76	OE
F34KBP		0.4139	-0.0001	-0.01	0.4917	-0.0031	-0.30	OE
FLEJ9R	X	0.4967	0.0827	8.22	0.5297	0.0348	3.31	ED
GCAT93	X	0.3773	-0.0366	-3.64	0.4690	-0.0258	-2.45	OE
HQ4QTC		0.4117	-0.0023	-0.23	0.4937	-0.0012	-0.11	IC
KPJQQY		0.4203	0.0064	0.63	0.4977	0.0028	0.27	OE
LJVDHJ		0.3933	-0.0206	-2.05	0.4737	-0.0212	-2.01	OE
LK3TRB		0.4257	0.0117	1.16	0.5127	0.0178	1.69	OE
LNKZ2V		0.4093	-0.0046	-0.46	0.4910	-0.0038	-0.36	IC
NCJ9EN		0.4107	-0.0033	-0.32	0.4901	-0.0047	-0.45	XX
NZ9CFX		0.4200	0.0060	0.60	0.5000	0.0052	0.49	OE
P63ZH6		0.4107	-0.0033	-0.33	0.4920	-0.0028	-0.27	OE
PYQ7BM		0.4111	-0.0028	-0.28	0.4943	-0.0006	-0.05	OE
QW3DBH		0.4293	0.0154	1.53	0.5093	0.0145	1.38	OE
RKYEL3		0.4194	0.0054	0.54	0.4929	-0.0020	-0.19	OE
T6LQ3D		0.4033	-0.0106	-1.06	0.4900	-0.0048	-0.46	OE
TH9E2D	X	0.3740	-0.0400	-3.97	0.4260	-0.0688	-6.54	OE
TL9PWD	X	0.3080	-0.1060	-10.53	0.3500	-0.1448	-13.76	IC
U3DVZL		0.4333	0.0194	1.93	0.5200	0.0252	2.39	OE
UKF34A		0.4154	0.0014	0.14	0.4950	0.0001	0.01	OE
VELCD4		0.4142	0.0002	0.02	0.4985	0.0037	0.35	OE
W39UVK		0.4350	0.0210	2.09	0.5170	0.0222	2.11	OE
WR8ATT		0.4150	0.0010	0.10	0.4980	0.0032	0.30	WC
X4GW9N		0.4080	-0.0060	-0.59	0.4823	-0.0125	-1.19	OE
ZKZ6PJ		0.3900	-0.0240	-2.38	0.4667	-0.0282	-2.68	OE
ZQ63V3		0.4033	-0.0106	-1.06	0.4867	-0.0082	-0.78	OE
ZW7HG4		0.4127	-0.0012	-0.12	0.4904	-0.0045	-0.42	OE
ZZBHPB		0.4043	-0.0096	-0.96	0.4870	-0.0078	-0.74	OE

Summary Statistics

	Sample A83		Sample A84	
Grand Means	0.4140	Percent	0.4948	Percent
Stnd Dev Btwn Labs	0.0101	Percent	0.0105	Percent

Samples A83, A84 : AA6060, AA6060

Statistics based on 39 of 45 reporting participants

Key to Method Codes Reported by Participants

ED	X-Ray Fluorescence - Energy Dispersive (EDX)	GD	Spectrometry - Glow Discharge (GDS)
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 #1543

B6B722 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample A84.

CB8PCV (X) - Data for both samples are low. Possible Systematic Error.

FLEJ9R (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

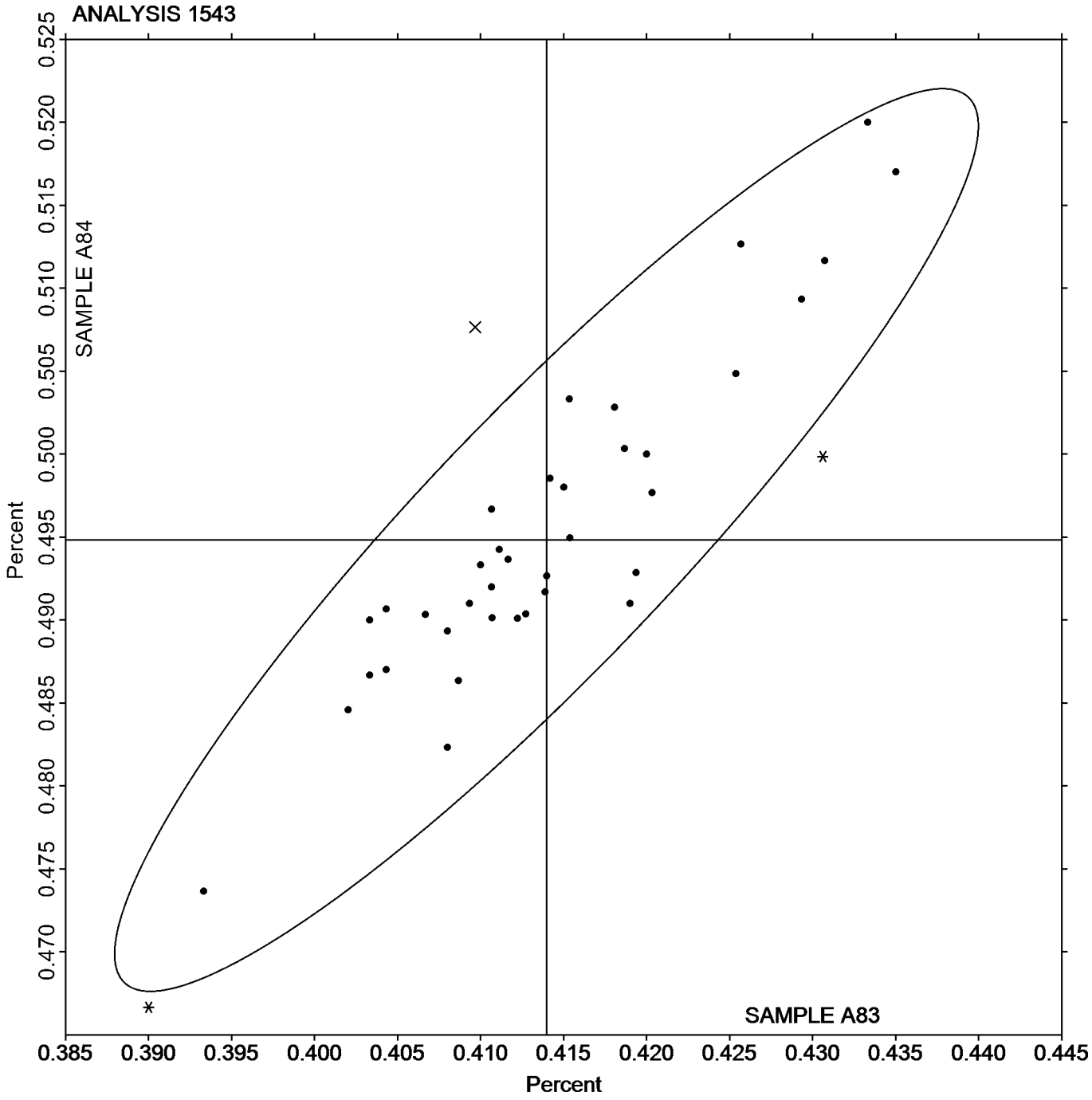
GCAT93 (X) - Data for sample A83 are low.

TH9E2D (X) - Data for both samples are low. Possible Systematic Error.

TL9PWD (X) - Data for both samples are low. Possible Systematic Error.

SAMPLE A83
0.4140 Percent

SAMPLE A84
0.4948 Percent



		Sample A83			Sample A84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HNCZH		0.0103	-0.0005	-0.52	0.0510	-0.0008	-0.48	OE
2HRC76		0.0103	-0.0005	-0.52	0.0526	0.0008	0.51	OE
3PJNPJ		0.0104	-0.0004	-0.46	0.0507	-0.0011	-0.68	IC
6HDNAE		0.0104	-0.0004	-0.45	0.0521	0.0003	0.22	OE
7XNR7T		0.0111	0.0003	0.37	0.0513	-0.0004	-0.27	OE
7ZQURN		0.0110	0.0002	0.22	0.0513	-0.0005	-0.31	OE
84ARUP		0.0104	-0.0004	-0.49	0.0526	0.0008	0.51	OE
8C48VA		0.0101	-0.0007	-0.79	0.0520	0.0002	0.15	OE
8DBPPY	X	0.00900	-0.0018	-2.02	0.0600	0.0082	5.24	GD
96WX2M		0.00960	-0.0012	-1.35	0.0516	-0.0002	-0.13	OE
9JRPCP		0.0108	0.0000	-0.04	0.0530	0.0012	0.79	OE
B6B722		0.0113	0.0005	0.60	0.0503	-0.0014	-0.91	OE
CB8PCV		0.0110	0.0002	0.22	0.0540	0.0022	1.42	OE
DABFVY		0.0119	0.0011	1.20	0.0546	0.0029	1.83	OE
DW4N8T	X	0.00807	-0.0027	-3.07	0.0570	0.0052	3.33	OE
EJWVM8		0.0116	0.0008	0.86	0.0511	-0.0006	-0.40	OE
EPNXQ8		0.0119	0.0011	1.23	0.0522	0.0004	0.27	OE
F29934	X	0.00130	-0.0095	-10.68	0.0421	-0.0096	-6.12	OE
F34KBP		0.0112	0.0004	0.41	0.0531	0.0013	0.83	OE
FLEJ9R	X	0.0156	0.0048	5.40	0.0530	0.0012	0.79	ED
GCAT93		0.0100	-0.0008	-0.90	0.0530	0.0012	0.79	OE
HQ4QTC		0.0113	0.0005	0.60	0.0510	-0.0008	-0.48	IC
KPJQQY		0.0123	0.0015	1.65	0.0518	0.0000	0.00	OE
LJVDHJ	X	0.0153	0.0045	5.10	0.0537	0.0019	1.21	OE
LK3TRB		0.0110	0.0002	0.19	0.0487	-0.0031	-1.95	OE
LNKZ2V		0.0108	0.0000	-0.04	0.0527	0.0009	0.58	IC
NCJ9EN		0.0105	-0.0003	-0.30	0.0514	-0.0003	-0.21	XX
NZ9CFX		0.0110	0.0002	0.22	0.0520	0.0002	0.15	OE
P63ZH6	X	0.00763	-0.0032	-3.56	0.0461	-0.0056	-3.58	OE
PYQ7BM	X	0.0105	-0.0003	-0.34	0.0441	-0.0076	-4.85	OE
QW3DBH	*	0.0124	0.0016	1.76	0.0566	0.0048	3.06	OE
RKYEL3		0.0106	-0.0002	-0.19	0.0505	-0.0013	-0.82	OE
T6LQ3D		0.0110	0.0002	0.22	0.0510	-0.0008	-0.48	OE
TH9E2D	X	0.0100	-0.0008	-0.90	0.0100	-0.0418	-26.57	OE
TL9PWD	*	0.00830	-0.0025	-2.81	0.0486	-0.0031	-1.99	IC
U3DVZL		0.0100	-0.0008	-0.90	0.0500	-0.0018	-1.12	OE
UKF34A		0.0118	0.0010	1.12	0.0503	-0.0014	-0.91	OE
VELCD4		0.0113	0.0005	0.55	0.0511	-0.0007	-0.41	OE
W39UVK		0.0110	0.0002	0.22	0.0513	-0.0004	-0.27	OE
WR8ATT		0.0106	-0.0002	-0.19	0.0512	-0.0005	-0.34	XX
X4GW9N		0.0113	0.0005	0.52	0.0508	-0.0010	-0.63	OE
ZKZ6PJ		0.00967	-0.0011	-1.27	0.0510	-0.0008	-0.48	OE
ZQ63V3		0.0120	0.0012	1.35	0.0547	0.0029	1.85	XX
ZW7HG4		0.0110	0.0002	0.22	0.0531	0.0014	0.87	OE
ZZBHPB		0.00853	-0.0023	-2.55	0.0509	-0.0008	-0.53	OE

Summary Statistics

	Sample A83		Sample A84	
Grand Means	0.0108	Percent	0.0518	Percent
Stnd Dev Btwn Labs	0.0009	Percent	0.0016	Percent

Samples A83, A84 : AA6060, AA6060

Statistics based on 37 of 45 reporting participants

Key to Method Codes Reported by Participants

ED	X-Ray Fluorescence - Energy Dispersive (EDX)	GD	Spectrometry - Glow Discharge (GDS)
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 #1544

8DBPPY (X) - Data for sample A84 are high.

DW4N8T (X) - Data for sample A83 are low and data for sample A84 are high.

F29934 (X) - Data for both samples are low.

FLEJ9R (X) - Data for sample A83 are high. Inconsistent within the determinations of sample A83.

LJVDHJ (X) - Data for sample A83 are high.

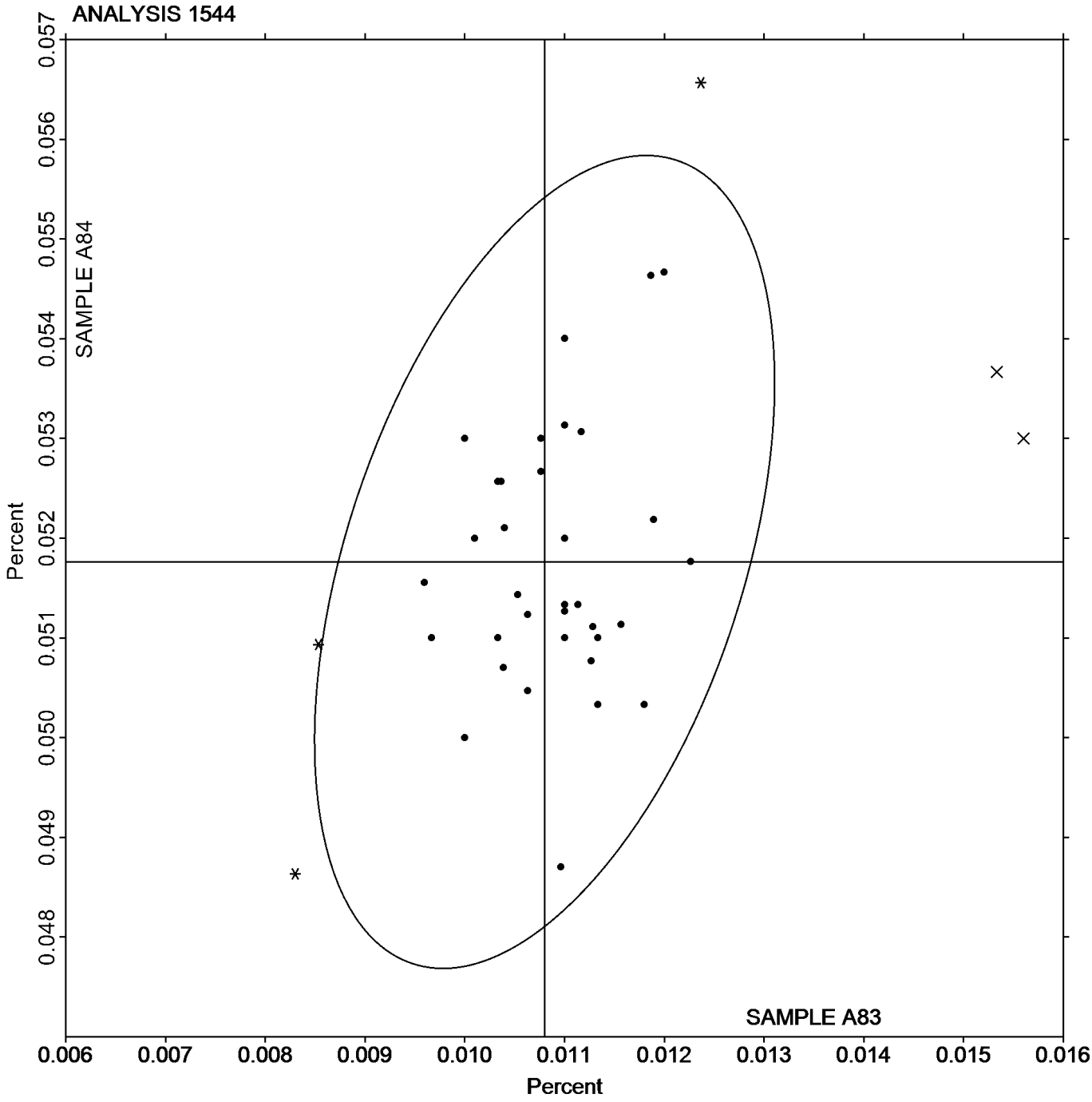
P63ZH6 (X) - Data for both samples are low. Inconsistent within the determinations of sample A83.

PYQ7BM (X) - Data for sample A84 are low.

TH9E2D (X) - Data for sample A84 are low.

SAMPLE A83
0.0108 Percent

SAMPLE A84
0.0518 Percent



		Sample A83			Sample A84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HNCZH		0.4790	-0.0083	-0.51	0.4773	-0.0051	-0.38	OE
2HRC76	X	0.5827	0.0954	5.86	0.4163	-0.0661	-4.91	OE
3PJNPJ		0.4797	-0.0076	-0.47	0.4710	-0.0115	-0.85	IC
6HDNAE		0.5127	0.0254	1.56	0.5087	0.0262	1.95	OE
7XNR7T		0.4713	-0.0160	-0.98	0.4707	-0.0118	-0.88	OE
7ZQURN		0.5017	0.0144	0.89	0.4957	0.0132	0.98	XX
84ARUP		0.4849	-0.0024	-0.14	0.4850	0.0025	0.19	OE
8C48VA		0.4913	0.0040	0.25	0.4890	0.0065	0.49	OE
8DBPPY	X	0.5450	0.0577	3.54	0.5010	0.0185	1.38	GD
96WX2M		0.4762	-0.0111	-0.68	0.4658	-0.0166	-1.24	OE
9JRPCP		0.4887	0.0014	0.08	0.4813	-0.0011	-0.08	OE
B6B722		0.5027	0.0154	0.94	0.4840	0.0015	0.11	OE
CB8PCV	X	0.4375	-0.0498	-3.06	0.4630	-0.0195	-1.45	OE
DABFVY		0.4887	0.0014	0.08	0.4861	0.0036	0.27	OE
DW4N8T		0.4747	-0.0126	-0.77	0.4703	-0.0121	-0.90	OE
EJWVM8		0.4887	0.0014	0.08	0.4873	0.0049	0.36	OE
EPNXQ8		0.5073	0.0201	1.23	0.4968	0.0143	1.06	OE
F29934		0.5187	0.0314	1.93	0.5089	0.0264	1.96	OE
F34KBP		0.4885	0.0012	0.08	0.4780	-0.0045	-0.33	OE
FLEJ9R		0.5100	0.0227	1.39	0.5020	0.0195	1.45	ED
GCAT93		0.4777	-0.0096	-0.59	0.4870	0.0045	0.34	OE
HQ4QTC		0.4940	0.0067	0.41	0.4887	0.0062	0.46	IC
KPJQQY		0.4720	-0.0153	-0.94	0.4647	-0.0178	-1.32	OE
LJVDHJ		0.4737	-0.0136	-0.84	0.4740	-0.0085	-0.63	OE
LK3TRB		0.4843	-0.0030	-0.18	0.4787	-0.0038	-0.28	OE
LNKZ2V		0.5073	0.0200	1.23	0.4957	0.0132	0.98	IC
NCJ9EN		0.4897	0.0024	0.15	0.4808	-0.0016	-0.12	OE
NZ9CFX		0.5100	0.0227	1.39	0.4967	0.0142	1.06	OE
P63ZH6		0.4877	0.0004	0.02	0.4833	0.0009	0.06	OE
PYQ7BM		0.4980	0.0107	0.66	0.4872	0.0047	0.35	OE
QW3DBH		0.4967	0.0094	0.58	0.4930	0.0105	0.78	OE
RKYEL3		0.5010	0.0137	0.84	0.4939	0.0114	0.85	OE
T6LQ3D		0.4500	-0.0373	-2.29	0.4533	-0.0291	-2.16	OE
TH9E2D	X	0.3860	-0.1013	-6.22	0.3820	-0.1005	-7.46	OE
TL9PWD		0.4813	-0.0060	-0.37	0.4687	-0.0138	-1.02	IC
U3DVZL		0.4967	0.0094	0.58	0.4833	0.0009	0.06	OE
UKF34A		0.4680	-0.0193	-1.19	0.4652	-0.0173	-1.28	OE
VELCD4		0.4988	0.0116	0.71	0.4942	0.0118	0.87	OE
W39UVK		0.4577	-0.0296	-1.82	0.4557	-0.0268	-1.99	OE
WR8ATT		0.4860	-0.0013	-0.08	0.4933	0.0109	0.81	XX
X4GW9N		0.4477	-0.0396	-2.43	0.4610	-0.0215	-1.59	OE
ZKZ6PJ	X	0.6633	0.1760	10.81	0.6533	0.1709	12.69	OE
ZQ63V3		0.4867	-0.0006	-0.04	0.4833	0.0009	0.06	OE
ZW7HG4		0.4914	0.0041	0.25	0.4893	0.0069	0.51	OE
ZZBHPB		0.4703	-0.0170	-1.04	0.4697	-0.0128	-0.95	OE

Summary Statistics

	Sample A83		Sample A84	
Grand Means	0.4873	Percent	0.4825	Percent
Stnd Dev Btwn Labs	0.0163	Percent	0.0135	Percent

Samples A83, A84 : AA6060, AA6060

Statistics based on 40 of 45 reporting participants

Key to Method Codes Reported by Participants

ED	X-Ray Fluorescence - Energy Dispersive (EDX)	GD	Spectrometry - Glow Discharge (GDS)
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 #1545

2HRC76 (X) - Data for sample A83 are high and data for sample A84 are low. Inconsistent in testing between samples.

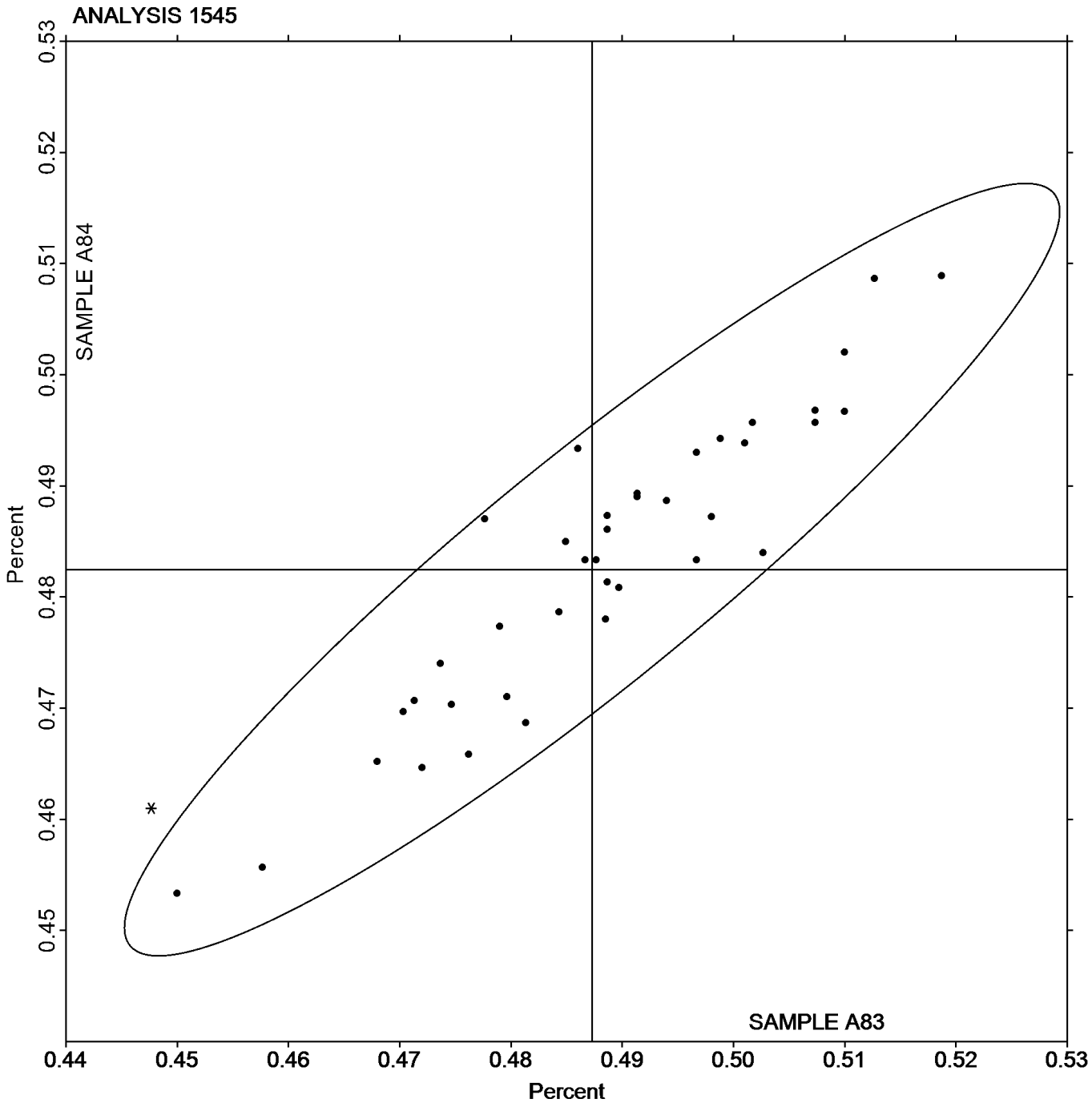
8DBPPY (X) - Data for sample A83 are high.

CB8PCV (X) - Data for sample A83 are low.

TH9E2D (X) - Data for both samples are low. Possible Systematic Error.

ZKZ6PJ (X) - Data for both samples are high. Possible Systematic Error.

SAMPLE A83	SAMPLE A84
0.4873 Percent	0.4825 Percent



		Sample A83			Sample A84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HNCZH	X	0.0100	0.00448	5.51	0.0193	0.0038	3.30	OE
2HRC76		0.00713	0.00161	1.98	0.0170	0.0015	1.29	OE
3PJNPJ		0.00523	-0.00029	-0.36	0.0149	-0.0007	-0.60	IC
6HDNAE		0.00537	-0.00016	-0.19	0.0152	-0.0003	-0.28	OE
7XNR7T		0.00507	-0.00046	-0.56	0.0139	-0.0016	-1.41	OE
7ZQURN		0.00533	-0.00019	-0.24	0.0155	-0.0001	-0.08	OE
84ARUP		0.00527	-0.00026	-0.32	0.0160	0.0004	0.36	OE
8C48VA		0.00540	-0.00012	-0.15	0.0153	-0.0003	-0.25	OE
8DBPPY		0.00700	0.00148	1.82	0.0180	0.0024	2.14	GD
96WX2M		0.00596	0.00044	0.54	0.0164	0.0009	0.78	OE
9JRPCP		0.00540	-0.00012	-0.15	0.0153	-0.0003	-0.22	OE
B6B722		0.00533	-0.00019	-0.24	0.0160	0.0004	0.39	OE
CB8PCV		0.00550	-0.00002	-0.03	0.0160	0.0004	0.39	OE
DABFVY		0.00553	0.00001	0.01	0.0161	0.0006	0.51	OE
DW4N8T		0.00487	-0.00066	-0.81	0.0130	-0.0026	-2.23	OE
EJWVM8		0.00570	0.00018	0.22	0.0162	0.0006	0.56	OE
EPNXQ8		0.00616	0.00064	0.78	0.0165	0.0010	0.85	OE
F29934	X	0.00713	0.00161	1.98	0.0201	0.0046	4.00	OE
F34KBP		0.00537	-0.00016	-0.19	0.0151	-0.0005	-0.40	OE
FLEJ9R		0.00713	0.00161	1.98	0.0165	0.0010	0.86	ED
GCAT93		0.00500	-0.00052	-0.65	0.0140	-0.0016	-1.36	OE
HQ4QTC		0.00400	-0.00152	-1.88	0.0140	-0.0016	-1.36	IC
KPJQQY		0.00713	0.00161	1.98	0.0182	0.0026	2.28	OE
LJVDHJ		0.00553	0.00001	0.01	0.0160	0.0004	0.39	OE
LK3TRB		0.00563	0.00011	0.13	0.0156	0.0000	0.04	OE
LNKZ2V		0.00570	0.00018	0.22	0.0151	-0.0005	-0.40	IC
NCJ9EN		0.00640	0.00088	1.08	0.0181	0.0026	2.25	XX
NZ9CFX	X	0.00300	-0.00252	-3.11	0.0150	-0.0006	-0.48	OE
P63ZH6		0.00693	0.00141	1.74	0.0168	0.0012	1.06	OE
PYQ7BM		0.00510	-0.00042	-0.52	0.0147	-0.0009	-0.77	OE
QW3DBH		0.00563	0.00011	0.13	0.0150	-0.0005	-0.45	OE
RKYEL3		0.00527	-0.00026	-0.32	0.0151	-0.0005	-0.42	OE
T6LQ3D	*	0.00400	-0.00152	-1.88	0.0150	-0.0006	-0.48	OE
TH9E2D	X	0.00200	-0.00352	-4.34	0.00200	-0.0136	-11.83	XX
U3DVZL	X	0.0100	0.00448	5.51	0.0200	0.0044	3.88	OE
UKF34A		0.00393	-0.00159	-1.96	0.0148	-0.0008	-0.66	OE
VELCD4		0.00538	-0.00015	-0.18	0.0154	-0.0002	-0.15	OE
W39UVK		0.00437	-0.00116	-1.43	0.0140	-0.0016	-1.36	OE
WR8ATT		0.00553	0.00001	0.01	0.0153	-0.0002	-0.19	XX
X4GW9N		0.00470	-0.00082	-1.02	0.0147	-0.0009	-0.74	OE
ZKZ6PJ		0.00600	0.00048	0.59	0.0160	0.0004	0.39	OE
ZQ63V3	X	0.0103	0.00481	5.92	0.0170	0.0014	1.26	OE
ZW7HG4		0.00527	-0.00026	-0.32	0.0148	-0.0007	-0.63	OE
ZZBHPB		0.00567	0.00014	0.18	0.0154	-0.0001	-0.10	OE

Summary Statistics

	Sample A83		Sample A84	
Grand Means	0.00552	Percent	0.0156	Percent
Stnd Dev Btwn Labs	0.00081	Percent	0.0011	Percent

Samples A83, A84 : AA6060, AA6060

Statistics based on 38 of 44 reporting participants

Key to Method Codes Reported by Participants

ED X-Ray Fluorescence - Energy Dispersive (EDX)
GD Spectrometry - Glow Discharge (GDS)
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 #1546

2HNCZH (X) - Data for both samples are high.

F29934 (X) - Data for sample A84 are high.

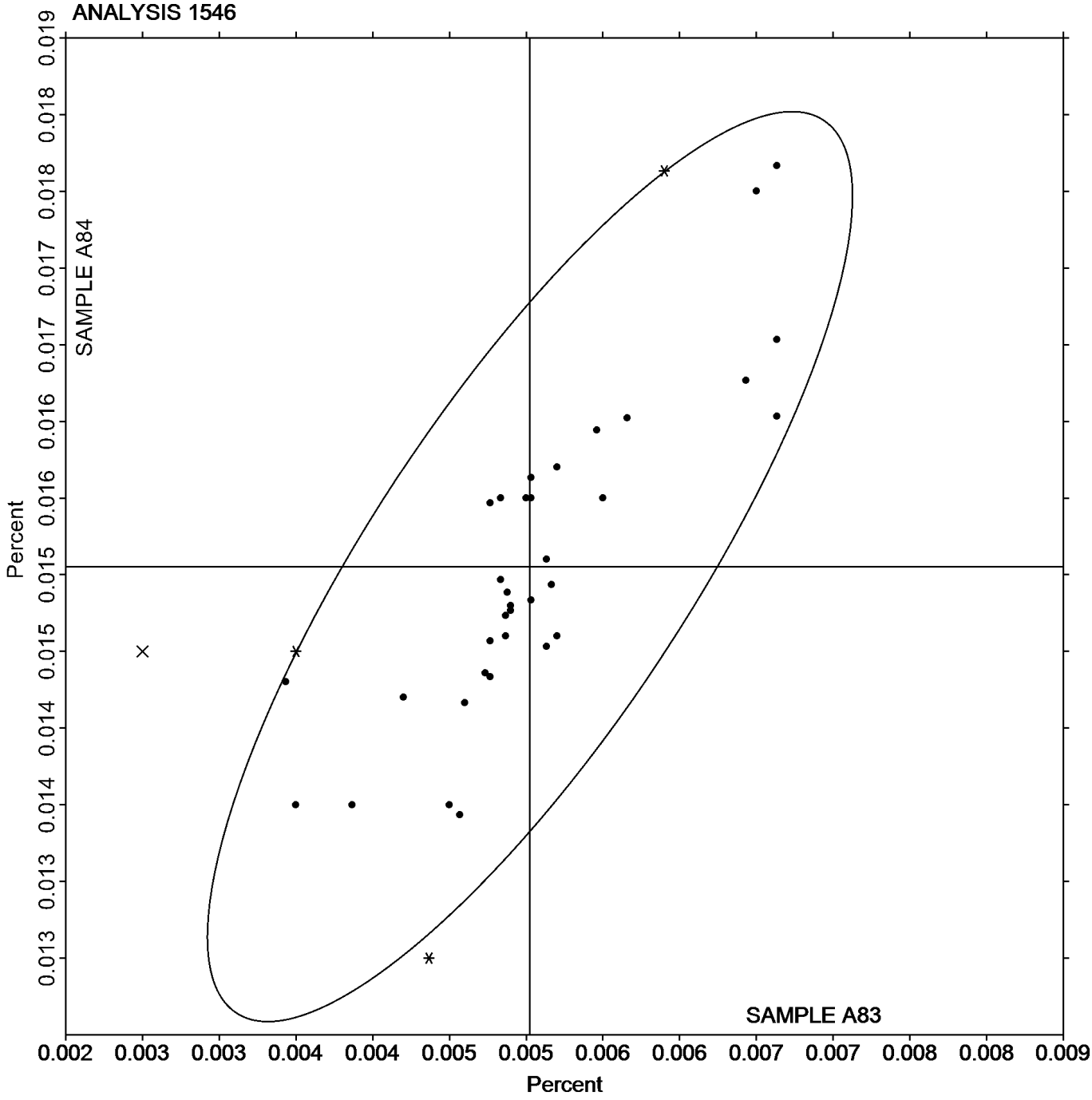
NZ9CFX (X) - Data for sample A83 are low.

TH9E2D (X) - Data for both samples are low.

U3DVZL (X) - Data for both samples are high.

ZQ63V3 (X) - Data for sample A83 are high. Inconsistent within the determinations of both samples.

SAMPLE A83	SAMPLE A84
0.00552 Percent	0.0156 Percent



		Sample A83			Sample A84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HNCZH		0.0215	0.0006	0.33	0.0149	-0.0002	-0.19	OE
2HRC76		0.0215	0.0005	0.31	0.0159	0.0009	1.10	OE
3PJNPJ		0.0197	-0.0013	-0.71	0.0141	-0.0010	-1.19	IC
6HDNAE		0.0188	-0.0022	-1.25	0.0142	-0.0008	-0.98	OE
7XNR7T		0.0217	0.0007	0.40	0.0171	0.0021	2.60	OE
7ZQURN		0.0223	0.0014	0.78	0.0149	-0.0002	-0.19	OE
84ARUP		0.0202	-0.0008	-0.43	0.0141	-0.0009	-1.15	OE
8C48VA		0.0243	0.0033	1.88	0.0163	0.0013	1.60	XX
8DBPPY	X	0.0290	0.0080	4.58	0.0180	0.0030	3.72	GD
96WX2M		0.0198	-0.0011	-0.65	0.0151	0.0000	0.06	OE
9JRPCP		0.0221	0.0011	0.65	0.0153	0.0003	0.39	OE
B6B722		0.0177	-0.0033	-1.87	0.0147	-0.0004	-0.44	OE
CB8PCV		0.0180	-0.0030	-1.68	0.0145	-0.0005	-0.65	OE
DABFVY		0.0207	-0.0003	-0.15	0.0129	-0.0021	-2.65	OE
DW4N8T		0.0187	-0.0023	-1.30	0.0147	-0.0004	-0.44	OE
EJWVM8		0.0182	-0.0028	-1.59	0.0140	-0.0010	-1.27	OE
EPNXQ8		0.0199	-0.0010	-0.58	0.0150	0.0000	-0.02	OE
F29934	X	0.0268	0.0058	3.31	0.0206	0.0056	7.01	OE
F34KBP		0.0195	-0.0015	-0.85	0.0145	-0.0005	-0.65	OE
FLEJ9R		0.0210	0.0001	0.04	0.0156	0.0006	0.77	ED
GCAT93		0.0240	0.0030	1.73	0.0150	0.0000	-0.02	OE
HQ4QTC		0.0210	0.0000	0.02	0.0147	-0.0004	-0.44	IC
KPJQQY		0.0184	-0.0025	-1.44	0.0146	-0.0004	-0.48	OE
LJVDHJ		0.0228	0.0018	1.05	0.0153	0.0003	0.35	OE
LK3TRB		0.0202	-0.0008	-0.43	0.0147	-0.0003	-0.36	OE
LNKZ2V		0.0239	0.0030	1.69	0.0166	0.0016	1.97	IC
NCJ9EN		0.0222	0.0013	0.73	0.0155	0.0005	0.60	OE
NZ9CFX		0.0207	-0.0003	-0.16	0.0157	0.0006	0.81	OE
P63ZH6		0.0208	-0.0002	-0.09	0.0159	0.0008	1.06	OE
PYQ7BM		0.0210	0.0001	0.04	0.0142	-0.0008	-1.02	OE
QW3DBH	X	0.0249	0.0039	2.24	0.0185	0.0035	4.39	OE
RKYEL3		0.0219	0.0009	0.52	0.0149	-0.0002	-0.19	OE
T6LQ3D		0.0220	0.0010	0.59	0.0143	-0.0007	-0.86	XX
TL9PWD		0.0202	-0.0007	-0.41	0.0149	-0.0002	-0.19	IC
U3DVZL		0.0200	-0.0010	-0.54	0.0167	0.0016	2.06	OE
UKF34A		0.0223	0.0013	0.75	0.0141	-0.0009	-1.11	OE
VELCD4		0.0219	0.0009	0.54	0.0152	0.0001	0.17	OE
W39UVK		0.0223	0.0014	0.78	0.0150	0.0000	-0.02	OE
WR8ATT		0.0202	-0.0008	-0.45	0.0149	-0.0001	-0.15	XX
X4GW9N		0.0250	0.0041	2.32	0.0148	-0.0002	-0.23	OE
ZKZ6PJ		0.0190	-0.0020	-1.11	0.0150	0.0000	-0.02	OE
ZQ63V3		0.0203	-0.0006	-0.35	0.0150	0.0000	-0.02	OE
ZW7HG4		0.0230	0.0021	1.18	0.0156	0.0005	0.68	OE
ZZBHPB		0.0204	-0.0005	-0.30	0.0156	0.0006	0.73	OE

Summary Statistics

	Sample A83		Sample A84	
Grand Means	0.0210	Percent	0.0150	Percent
Stnd Dev Btwn Labs	0.0018	Percent	0.0008	Percent

Samples A83, A84 : AA6060, AA6060

Statistics based on 41 of 44 reporting participants

Key to Method Codes Reported by Participants

ED	X-Ray Fluorescence - Energy Dispersive (EDX)	GD	Spectrometry - Glow Discharge (GDS)
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 #1547

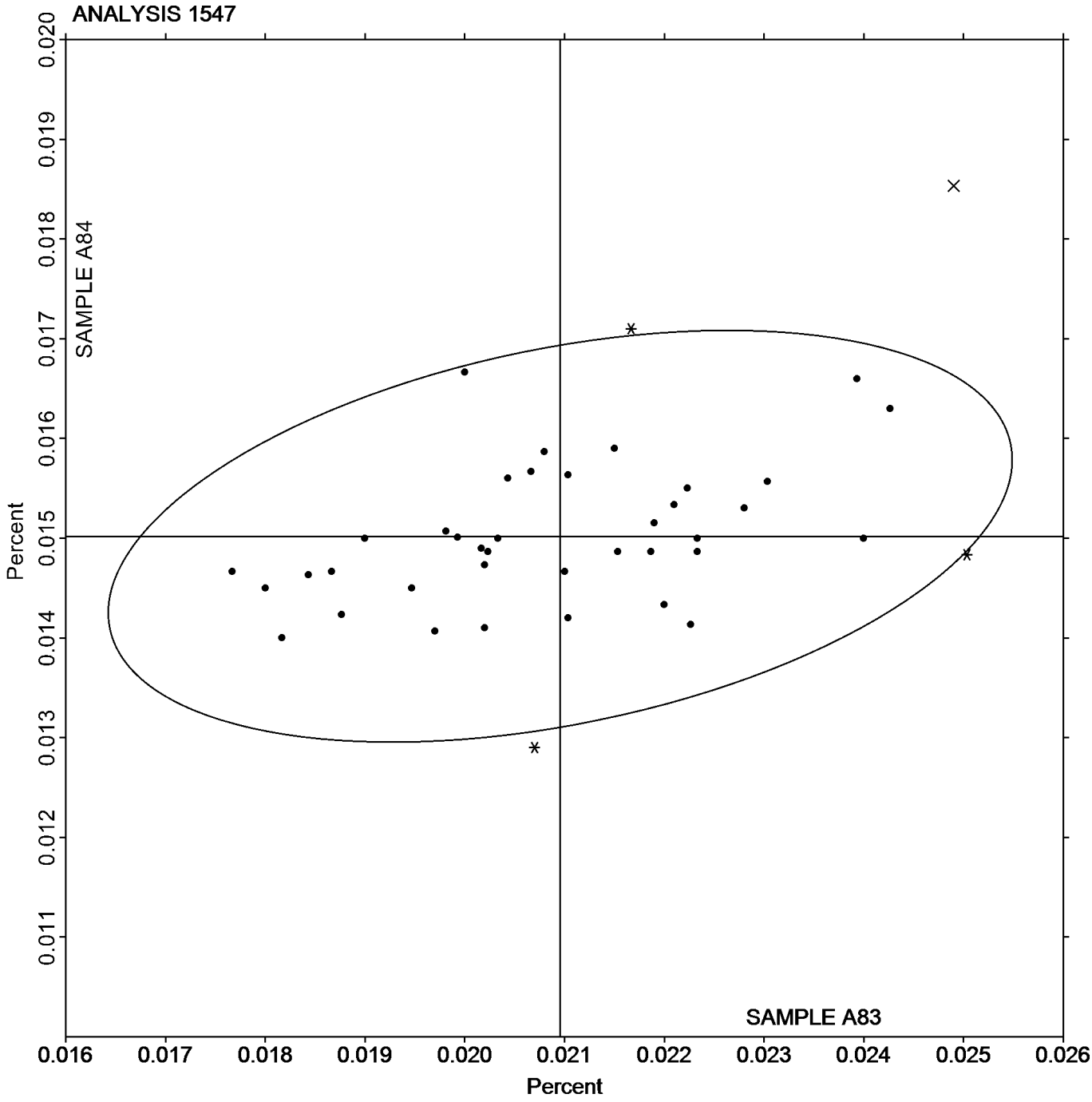
8DBPPY (X) - Data for both samples are high.

F29934 (X) - Data for both samples are high. Inconsistent within the determinations of sample A83.

QW3DBH (X) - Data for sample A84 are high.

SAMPLE A83
0.0210 Percent

SAMPLE A84
0.0150 Percent



		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76	X	0.0591	0.0132	4.32	0.0597	0.0101	3.02	OE
34KEA3		0.0433	-0.0026	-0.85	0.0427	-0.0069	-2.05	GD
3G9DJD	*	0.0453	-0.0007	-0.22	0.0410	-0.0085	-2.53	OE
47MV2Q		0.0388	-0.0071	-2.33	0.0445	-0.0051	-1.51	OE
47PQZH		0.0510	0.0051	1.65	0.0527	0.0031	0.93	XX
4V47JL		0.0463	0.0004	0.13	0.0501	0.0006	0.18	CO
6HABHB	X	0.0317	-0.0143	-4.67	0.0360	-0.0135	-4.03	OE
6LX92G		0.0453	-0.0006	-0.20	0.0493	-0.0002	-0.07	OE
6TBUWK		0.0441	-0.0018	-0.59	0.0483	-0.0012	-0.36	CI
6YLPY9		0.0450	-0.0009	-0.31	0.0493	-0.0002	-0.06	CI
7ZBDWV		0.0430	-0.0029	-0.96	0.0477	-0.0019	-0.56	CI
8C48VA		0.0447	-0.0012	-0.40	0.0495	-0.0001	-0.02	CO
8DBPPY		0.0520	0.0061	1.98	0.0550	0.0055	1.63	GD
8QFH4A		0.0450	-0.0009	-0.31	0.0495	-0.0001	-0.02	CI
AHEANF	X	0.0343	-0.0116	-3.81	0.0413	-0.0082	-2.45	OE
AZDE6X		0.0457	-0.0002	-0.07	0.0511	0.0016	0.48	CI
B6B722		0.0470	0.0011	0.35	0.0497	0.0001	0.04	OE
BURPCZ		0.0450	-0.0009	-0.31	0.0499	0.0003	0.10	CO
BXM93H	X	0.0713	0.0254	8.31	0.0853	0.0358	10.66	OE
C8P6PF		0.0443	-0.0016	-0.53	0.0483	-0.0012	-0.36	CI
DYV6GL		0.0460	0.0001	0.02	0.0500	0.0005	0.14	OE
F34KBP		0.0453	-0.0007	-0.22	0.0492	-0.0003	-0.10	OE
FAK3KQ		0.0453	-0.0006	-0.20	0.0493	-0.0002	-0.06	XX
GFML7M		0.0440	-0.0019	-0.63	0.0478	-0.0017	-0.51	CO
GHT8XT		0.0470	0.0011	0.36	0.0507	0.0011	0.34	OE
GJMTRK		0.0459	0.0000	0.00	0.0505	0.0009	0.28	CI
GZY79H		0.0498	0.0039	1.27	0.0540	0.0045	1.34	OE
H89M62		0.0457	-0.0003	-0.09	0.0507	0.0012	0.35	IR
HQ4QTC		0.0450	-0.0009	-0.31	0.0507	0.0011	0.34	OE
KL3FPN		0.0490	0.0031	1.00	0.0570	0.0075	2.22	OE
KPJQQY		0.0417	-0.0042	-1.38	0.0440	-0.0055	-1.65	OE
KUV8B2		0.0486	0.0027	0.88	0.0511	0.0016	0.47	OE
LMEFFG		0.0481	0.0022	0.71	0.0530	0.0034	1.02	XX
NTRAZ4		0.0453	-0.0006	-0.20	0.0459	-0.0036	-1.07	OE
NZ9CFX		0.0514	0.0055	1.80	0.0525	0.0030	0.88	OE
Q776KR		0.0458	-0.0002	-0.06	0.0501	0.0006	0.17	OE
Q8K89W		0.0490	0.0031	1.00	0.0513	0.0018	0.53	OE
QANMKN		0.0490	0.0031	1.00	0.0513	0.0018	0.53	OE
QW3DBH		0.0401	-0.0058	-1.90	0.0430	-0.0066	-1.96	OE
RY34V3		0.0495	0.0035	1.15	0.0538	0.0042	1.26	OE
TH9E2D		0.0420	-0.0039	-1.29	0.0437	-0.0059	-1.75	OE
U3DVZL		0.0480	0.0021	0.67	0.0517	0.0021	0.63	CI
UVJMHG		0.0479	0.0020	0.64	0.0536	0.0041	1.21	OE
VELCD4		0.0469	0.0009	0.30	0.0505	0.0009	0.28	OE
W39UVK	*	0.0373	-0.0086	-2.82	0.0410	-0.0085	-2.54	OE
W9ERYC		0.0446	-0.0014	-0.45	0.0465	-0.0031	-0.91	GD
XG8VDT		0.0473	0.0014	0.45	0.0504	0.0009	0.27	CI

WebCode	Data Flag	Sample M83 Lab Mean	Sample M83 Diff. from Grand Mean	Sample M83 CPV	Sample M84 Lab Mean	Sample M84 Diff. from Grand Mean	Sample M84 CPV	Method
XV6XX7		0.0462	0.0003	0.09	0.0510	0.0014	0.43	CI
XY3QJN		0.0453	-0.0006	-0.21	0.0478	-0.0018	-0.53	OE
Y3FQEV		0.0419	-0.0040	-1.32	0.0450	-0.0045	-1.35	GD
Y4X8N9		0.0454	-0.0006	-0.19	0.0451	-0.0045	-1.33	OE
ZB8GKM		0.0480	0.0021	0.67	0.0510	0.0015	0.44	CO
ZQ63V3		0.0520	0.0061	1.98	0.0513	0.0018	0.53	OE
ZW7HG4		0.0467	0.0007	0.24	0.0513	0.0018	0.53	OE
ZZC7CG	*	0.0453	-0.0007	-0.22	0.0538	0.0042	1.26	IR

Summary Statistics

	Sample M83		Sample M84	
Grand Means	0.0459	Percent	0.0495	Percent
Stnd Dev Btwn Labs	0.0031	Percent	0.0034	Percent

Samples M83, M84 : AISI 310, AISI 310

Statistics based on 50 of 55 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 #1640

2HRC76 (X) - Data for both samples are high. Possible Systematic Error.

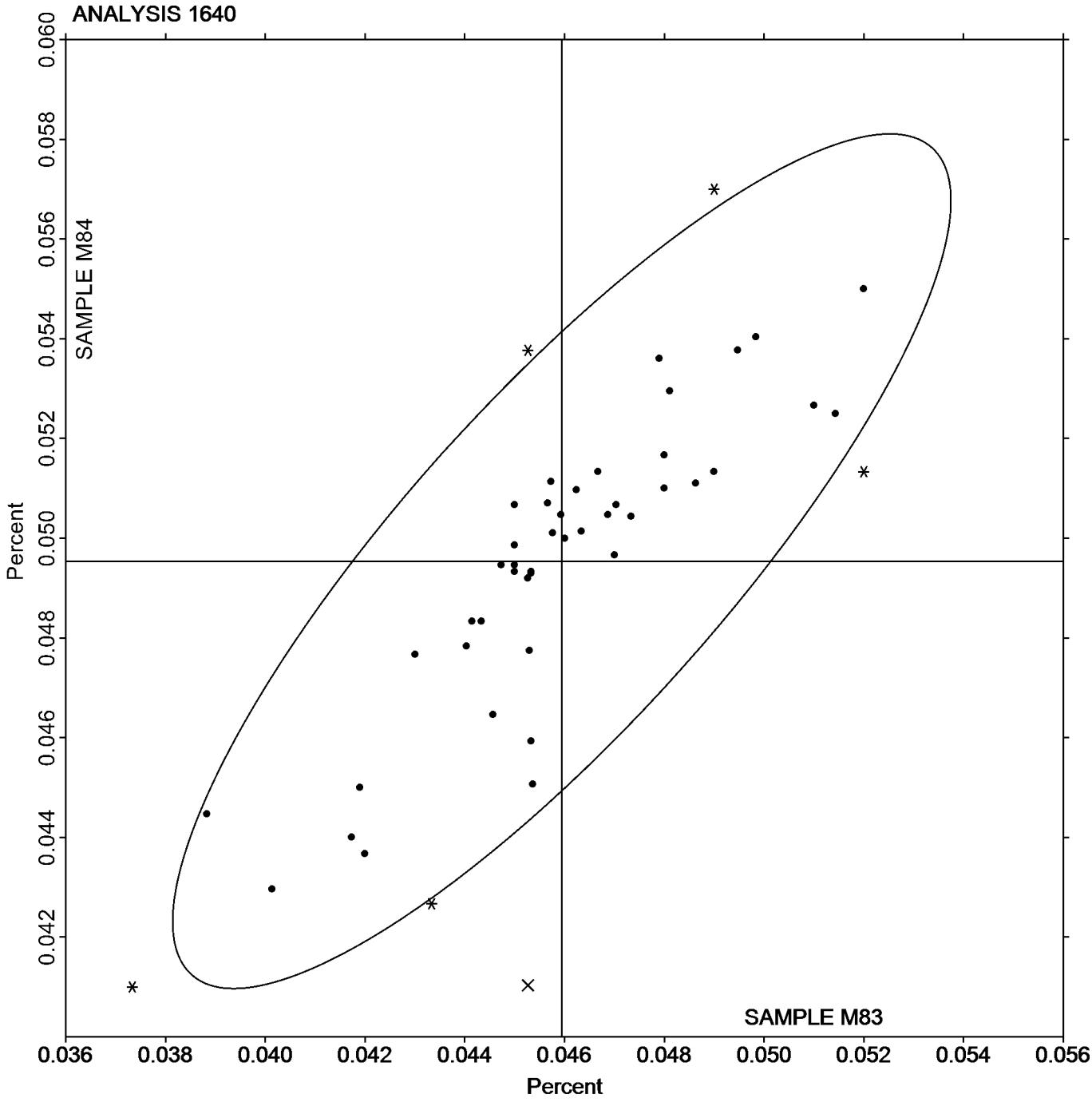
6HABHB (X) - Data for both samples are low. Possible Systematic Error.

AHEANF (X) - Data for sample M83 are low.

BXM93H (X) - Data for both samples are high. Possible Systematic Error.

SAMPLE M83
0.0459 Percent

SAMPLE M84
0.0495 Percent



		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		1.410	0.005	0.20	1.570	-0.018	-0.73	OE
34KEA3		1.420	0.015	0.64	1.610	0.022	0.94	GD
3G9DJD	X	1.517	0.111	4.92	1.683	0.096	4.00	OE
47MV2Q		1.395	-0.010	-0.46	1.564	-0.024	-0.98	OE
47PQZH		1.413	0.008	0.35	1.600	0.012	0.52	XX
4V47JL		1.407	0.001	0.05	1.593	0.006	0.24	OE
6HABHB		1.450	0.045	1.97	1.623	0.036	1.50	OE
6LX92G	X	1.410	0.005	0.20	1.513	-0.074	-3.10	OE
6TBUWK		1.400	-0.005	-0.24	1.583	-0.005	-0.21	WD
6YLPY9		1.422	0.016	0.72	1.576	-0.012	-0.48	IC
7ZBDWV		1.417	0.011	0.50	1.597	0.009	0.38	IC
8C48VA		1.397	-0.008	-0.37	1.593	0.005	0.21	IC
8DBPPY		1.427	0.022	0.95	1.627	0.039	1.65	GD
8QFH4A		1.414	0.009	0.39	1.585	-0.002	-0.09	WD
AHEANF		1.375	-0.030	-1.35	1.575	-0.013	-0.54	OE
AZDE6X	X	1.337	-0.069	-3.05	1.577	-0.011	-0.46	IC
B6B722		1.399	-0.006	-0.27	1.568	-0.020	-0.82	OE
BURPCZ		1.414	0.008	0.36	1.588	0.000	0.00	WD
BXM93H		1.357	-0.048	-2.13	1.536	-0.051	-2.14	OE
C8P6PF		1.417	0.012	0.51	1.599	0.012	0.49	WD
DYV6GL		1.400	-0.005	-0.24	1.580	-0.008	-0.32	OE
F34KBP		1.435	0.029	1.29	1.623	0.036	1.50	OE
FAK3KQ		1.437	0.031	1.38	1.627	0.039	1.63	WC
GFML7M		1.350	-0.055	-2.46	1.530	-0.058	-2.41	OE
GHT8XT		1.403	-0.002	-0.09	1.570	-0.018	-0.73	OE
GJMTRK		1.396	-0.010	-0.43	1.581	-0.006	-0.26	OE
GZY79H		1.414	0.008	0.36	1.584	-0.004	-0.15	WD
H89M62		1.412	0.007	0.29	1.587	-0.001	-0.02	WD
HQ4QTC		1.388	-0.018	-0.79	1.598	0.010	0.44	OE
KL3FPN		1.430	0.025	1.09	1.620	0.032	1.36	OE
KPJQQY		1.430	0.025	1.09	1.610	0.022	0.94	OE
KUV8B2		1.403	-0.002	-0.09	1.573	-0.014	-0.59	OE
LJVDHJ		1.457	0.051	2.27	1.628	0.040	1.68	XR
LMEFFG		1.387	-0.018	-0.81	1.559	-0.028	-1.19	XX
NTRAZ4	X	1.210	-0.196	-8.67	1.393	-0.194	-8.12	OE
NZ9CFX		1.381	-0.024	-1.08	1.568	-0.020	-0.82	OE
Q776KR		1.410	0.005	0.20	1.600	0.012	0.52	OE
Q8K89W		1.414	0.009	0.38	1.621	0.033	1.40	OE
QANMKN	X	1.451	0.045	2.00	1.687	0.099	4.14	OE
QW3DBH		1.407	0.001	0.05	1.587	-0.001	-0.04	OE
RY34V3		1.400	-0.005	-0.24	1.563	-0.024	-1.01	OE
TH9E2D		1.379	-0.026	-1.17	1.587	-0.001	-0.02	OE
U3DVZL		1.407	0.001	0.05	1.590	0.002	0.10	WD
UVJMHG		1.386	-0.019	-0.86	1.580	-0.008	-0.32	OE
VELCD4		1.400	-0.006	-0.26	1.595	0.007	0.29	OE
W39UVK	*	1.335	-0.070	-3.10	1.529	-0.059	-2.45	OE
W9ERYC	X	1.290	-0.115	-5.11	1.497	-0.091	-3.80	GD

Fasteners and Metals Interlaboratory Testing Program

Analysis 1641

Corrosion Resistant Steel, MANGANESE (Mn)

MANGANESE (Mn)

Cycle 138
2nd Qtr
2022

WebCode	Data Flag	Sample M83 Lab Mean	Sample M83 Diff. from Grand Mean	Sample M83 CPV	Sample M84 Lab Mean	Sample M84 Diff. from Grand Mean	Sample M84 CPV	Method
XY3QJN		1.421	0.015	0.67	1.608	0.020	0.86	WD
Y3FQEV		1.420	0.015	0.64	1.590	0.002	0.10	GD
Y4X8N9		1.407	0.001	0.05	1.593	0.006	0.24	OE
Z8MLPH		1.401	-0.004	-0.20	1.569	-0.019	-0.78	OE
ZB8GKM		1.416	0.011	0.47	1.617	0.029	1.23	OE
ZQ63V3	X	1.363	-0.042	-1.87	1.500	-0.088	-3.66	OE
ZW7HG4		1.395	-0.010	-0.45	1.562	-0.025	-1.05	OE
ZZC7CG		1.410	0.004	0.19	1.586	-0.002	-0.07	WD

Summary Statistics

	Sample M83		Sample M84	
Grand Means	1.405	Percent	1.588	Percent
Stnd Dev Btwn Labs	0.023	Percent	0.024	Percent

Samples M83, M84 : AISI 310, AISI 310

Statistics based on 48 of 55 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)	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 #1641

3G9DJD (X) - Data for both samples are high. Possible Systematic Error.

6LX92G (X) - Data for sample M84 are low.

AZDE6X (X) - Data for sample M83 are low. Inconsistent within the determinations of both samples.

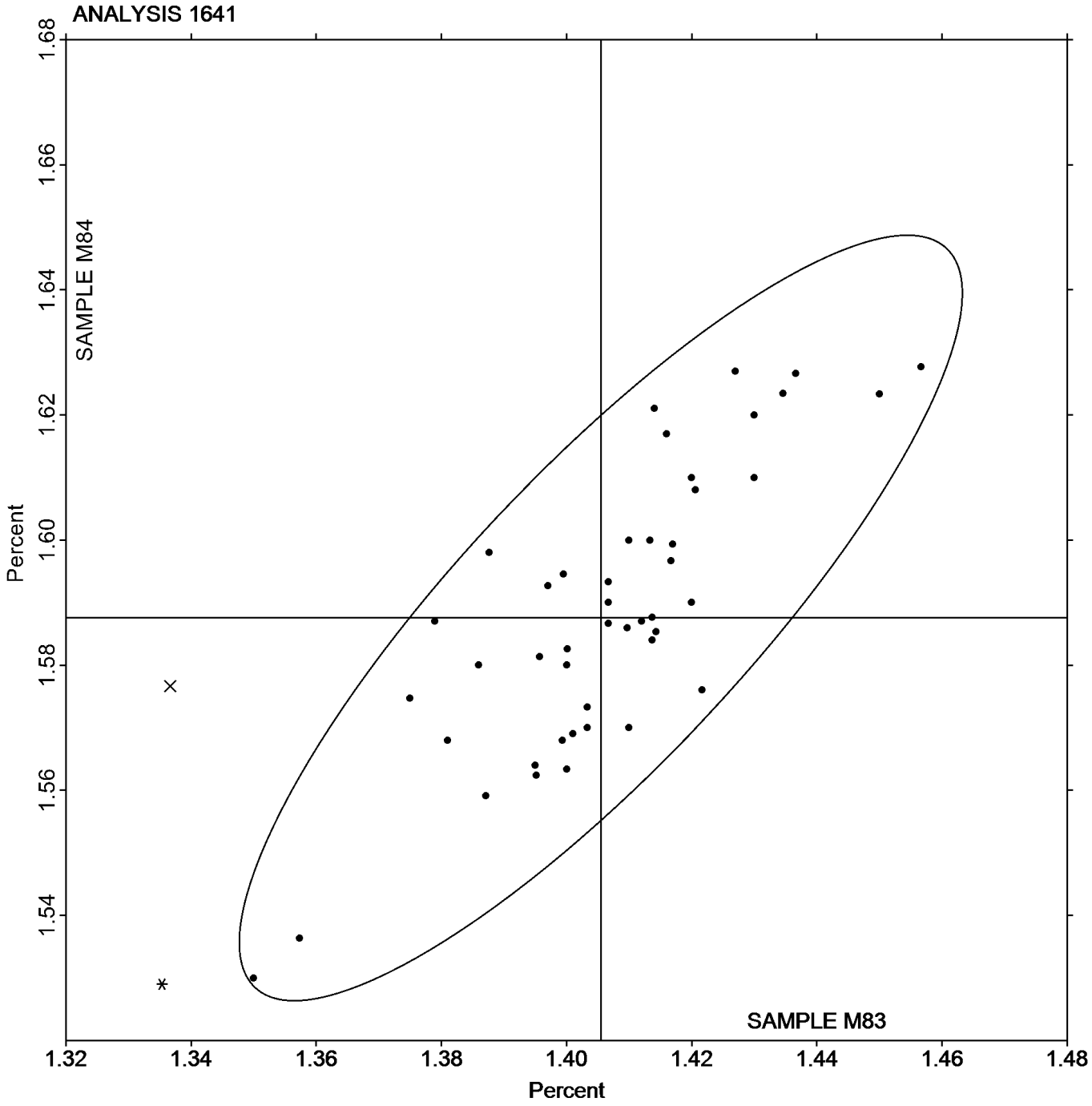
NTRAZ4 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample M83.

QANMKN (X) - Data for sample M84 are high. Inconsistent within the determinations of sample M83.

W9ERYC (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample M83.

ZQ63V3 (X) - Data for sample M84 are low. Inconsistent within the determinations of sample M83.

SAMPLE M83	SAMPLE M84
1.405 Percent	1.588 Percent



		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		0.0271	0.0009	0.63	0.0280	0.0016	0.98	OE
34KEA3		0.0243	-0.0019	-1.31	0.0227	-0.0037	-2.25	GD
3G9DJD	*	0.0307	0.0045	3.15	0.0306	0.0043	2.61	OE
47MV2Q		0.0265	0.0003	0.21	0.0277	0.0013	0.82	OE
47PQZH		0.0270	0.0008	0.56	0.0273	0.0010	0.60	XX
4V47JL		0.0257	-0.0005	-0.38	0.0270	0.0006	0.39	OE
6HABHB	X	0.0187	-0.0075	-5.27	0.0202	-0.0061	-3.74	OE
6LX92G		0.0255	-0.0007	-0.47	0.0256	-0.0008	-0.48	OE
6TBUWK		0.0263	0.0001	0.09	0.0263	-0.0001	-0.03	WD
6YLPY9		0.0266	0.0004	0.28	0.0271	0.0008	0.48	IC
7ZBDWV		0.0267	0.0005	0.32	0.0273	0.0010	0.60	IC
8C48VA		0.0273	0.0011	0.79	0.0276	0.0012	0.76	IC
8DBPPY		0.0260	-0.0002	-0.14	0.0270	0.0006	0.39	GD
8QFH4A		0.0276	0.0014	0.95	0.0271	0.0007	0.46	WD
AHEANF		0.0255	-0.0007	-0.49	0.0252	-0.0012	-0.70	OE
AZDE6X	X	0.0328	0.0066	4.59	0.0343	0.0079	4.85	IC
B6B722		0.0277	0.0015	1.02	0.0267	0.0003	0.19	OE
BURPCZ		0.0265	0.0003	0.23	0.0265	0.0002	0.11	WD
BXM93H		0.0260	-0.0002	-0.14	0.0263	0.0000	-0.01	OE
C8P6PF		0.0263	0.0001	0.09	0.0270	0.0006	0.39	WD
DYV6GL		0.0280	0.0018	1.26	0.0290	0.0026	1.62	OE
F34KBP		0.0263	0.0001	0.04	0.0269	0.0006	0.35	OE
FAK3KQ		0.0247	-0.0015	-1.08	0.0223	-0.0040	-2.45	WC
GFML7M		0.0260	-0.0002	-0.14	0.0263	0.0000	-0.01	OE
GHT8XT		0.0280	0.0018	1.28	0.0277	0.0014	0.84	OE
GJMTRK		0.0266	0.0004	0.25	0.0273	0.0009	0.56	OE
GZY79H		0.0251	-0.0011	-0.77	0.0249	-0.0014	-0.87	WD
H89M62		0.0258	-0.0004	-0.26	0.0255	-0.0008	-0.50	WD
HQ4QTC		0.0270	0.0008	0.58	0.0266	0.0003	0.17	OE
KL3FPN		0.0250	-0.0012	-0.84	0.0260	-0.0004	-0.22	OE
KPJQQY		0.0274	0.0012	0.81	0.0256	-0.0007	-0.44	OE
KUV8B2		0.0282	0.0020	1.40	0.0295	0.0031	1.90	OE
LJVDHJ		0.0247	-0.0015	-1.08	0.0263	0.0000	-0.01	XR
LMEFFG		0.0251	-0.0011	-0.76	0.0251	-0.0012	-0.76	XX
NTRAZ4		0.0244	-0.0018	-1.24	0.0258	-0.0006	-0.36	OE
NZ9CFX		0.0278	0.0016	1.12	0.0278	0.0014	0.88	OE
Q776KR		0.0278	0.0016	1.14	0.0275	0.0011	0.70	OE
Q8K89W		0.0263	0.0001	0.09	0.0267	0.0003	0.19	OE
QANMKN		0.0247	-0.0015	-1.08	0.0253	-0.0010	-0.62	OE
QW3DBH		0.0242	-0.0020	-1.40	0.0231	-0.0033	-1.99	OE
RY34V3		0.0253	-0.0009	-0.66	0.0267	0.0003	0.19	OE
TH9E2D		0.0257	-0.0005	-0.38	0.0253	-0.0010	-0.62	OE
U3DVZL		0.0263	0.0001	0.09	0.0263	0.0000	-0.01	OE
UVJMHG		0.0273	0.0011	0.77	0.0279	0.0015	0.94	OE
VELCD4		0.0262	0.0000	0.02	0.0265	0.0001	0.07	OE
W39UVK	X	0.000500	-0.0257	-17.98	0.000500	-0.0259	-15.78	OE
W9ERYC		0.0287	0.0025	1.75	0.0265	0.0001	0.09	GD

Fasteners and Metals Interlaboratory Testing Program

Analysis 1642

Corrosion Resistant Steel, PHOSPHORUS (P)

PHOSPHORUS (P)

Cycle 138
2nd Qtr
2022

		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
XY3QJN	*	0.0240	-0.0022	-1.57	0.0267	0.0003	0.18	WD
Y3FQEV		0.0229	-0.0033	-2.31	0.0224	-0.0040	-2.41	GD
Y4X8N9	X	0.0324	0.0062	4.31	0.0333	0.0069	4.22	OE
ZB8GKM		0.0241	-0.0021	-1.47	0.0243	-0.0021	-1.25	OE
ZQ63V3		0.0247	-0.0015	-1.08	0.0237	-0.0027	-1.64	OE
ZW7HG4		0.0266	0.0004	0.28	0.0267	0.0003	0.19	OE
ZZC7CG		0.0260	-0.0002	-0.14	0.0263	0.0000	-0.01	WD

Summary Statistics

	Sample M83		Sample M84	
Grand Means	0.0262	Percent	0.0264	Percent
Stnd Dev Btwn Labs	0.0014	Percent	0.0016	Percent

Samples M83, M84 : AISI 310, AISI 310

Statistics based on 50 of 54 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)	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 #1642

6HABHB (X) - Data for both samples are low. Possible Systematic Error.

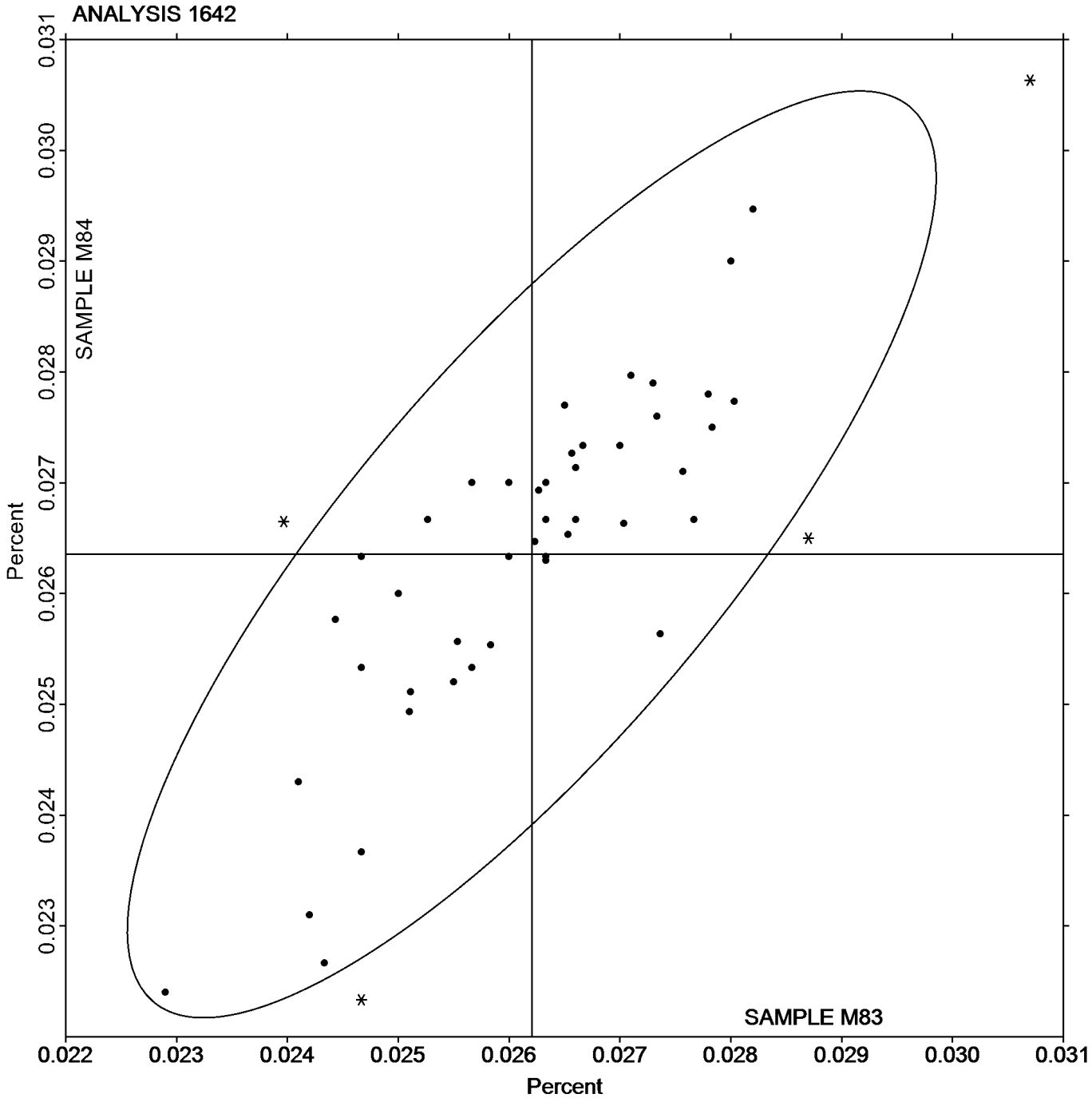
AZDE6X (X) - Data for both samples are high. Possible Systematic Error.

W39UVK (X) - Data for both samples are low. Possible Systematic Error.

Y4X8N9 (X) - Data for both samples are high. Possible Systematic Error.

SAMPLE M83
0.0262 Percent

SAMPLE M84
0.0264 Percent



		Sample			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76	M	No Data Reported			0.00517	-0.00053	-0.69	OE
34KEA3		0.00210	0.00077	1.27	0.00593	0.00024	0.31	GD
3G9DJD		0.00170	0.00037	0.61	0.00560	-0.00010	-0.12	OE
47MV2Q		0.000600	-0.00073	-1.20	0.00367	-0.00203	-2.64	OE
47PQZH		0.00217	0.00084	1.38	0.00543	-0.00026	-0.34	XX
4V47JL		0.00176	0.00043	0.70	0.00481	-0.00088	-1.15	CO
6HABHB		0.00100	-0.00033	-0.54	0.00397	-0.00173	-2.25	OE
6LX92G		0.00180	0.00047	0.77	0.00660	0.00090	1.18	OE
6TBUWK		0.000920	-0.00041	-0.67	0.00519	-0.00051	-0.66	CI
6YLPY9	M	No Data Reported			0.00590	0.00020	0.27	CI
7ZBDWV		0.000800	-0.00053	-0.87	0.00587	0.00017	0.22	CI
8C48VA	M	No Data Reported			0.00587	0.00017	0.22	CO
8DBPPY	*	0.00300	0.00167	2.75	0.00700	0.00130	1.70	GD
8QFH4A		0.000653	-0.00068	-1.11	0.00557	-0.00013	-0.17	CI
AHEANF		0.00290	0.00157	2.58	0.00753	0.00184	2.39	OE
AZDE6X		0.00117	-0.00016	-0.27	0.00567	-0.00003	-0.04	CI
B6B722	X	0.00167	0.00034	0.56	0.00300	-0.00270	-3.51	OE
BURPCZ		0.000867	-0.00046	-0.76	0.00567	-0.00003	-0.04	WD
BXM93H	M	No Data Reported			0.00400	-0.00170	-2.21	OE
C8P6PF		0.000863	-0.00047	-0.77	0.00580	0.00010	0.14	CI
DYV6GL		0.00100	-0.00033	-0.54	0.00500	-0.00070	-0.91	OE
F34KBP		0.00100	-0.00033	-0.54	0.00540	-0.00030	-0.38	OE
FAK3KQ		0.000767	-0.00056	-0.92	0.00567	-0.00003	-0.04	XX
GFML7M		0.000867	-0.00046	-0.76	0.00563	-0.00006	-0.08	CO
GHT8XT	X	0.00553	0.00420	6.91	0.00917	0.00347	4.52	OE
GJMTRK		0.00100	-0.00033	-0.54	0.00540	-0.00030	-0.38	CI
GZY79H		0.000567	-0.00076	-1.25	0.00493	-0.00076	-0.99	OE
H89M62		0.000967	-0.00036	-0.60	0.00587	0.00017	0.22	CI
HQ4QTC		0.00100	-0.00033	-0.54	0.00493	-0.00076	-0.99	OE
KL3FPN		0.00100	-0.00033	-0.54	0.00600	0.00030	0.40	OE
KPJQQY		0.00197	0.00064	1.05	0.00533	-0.00036	-0.47	OE
LJVDHJ	X	0.000857	-0.00047	-0.78	0.1390	0.13330	173.62	XR
LMEFFG		0.000967	-0.00036	-0.60	0.00533	-0.00036	-0.47	XX
NTRAZ4	X	0.0244	0.02310	37.98	0.00637	0.00067	0.87	OE
NZ9CFX		0.000980	-0.00035	-0.57	0.00602	0.00032	0.42	OE
Q776KR		0.00223	0.00090	1.49	0.00720	0.00150	1.96	OE
Q8K89W		0.00133	0.00000	0.01	0.00503	-0.00066	-0.86	OE
QANMKN	X	0.0120	0.01067	17.54	0.0153	0.00964	12.55	OE
QW3DBH	X	0.00420	0.00287	4.72	0.00760	0.00190	2.48	OE
RY34V3		0.000900	-0.00043	-0.71	0.00527	-0.00043	-0.56	OE
TH9E2D	X	0.00833	0.00700	11.51	0.0130	0.00730	9.51	OE
U3DVZL		0.00100	-0.00033	-0.54	0.00633	0.00064	0.83	CI
UVJMHG		0.00140	0.00007	0.12	0.00610	0.00040	0.53	OE
VELCD4		0.00173	0.00040	0.66	0.00617	0.00047	0.61	OE
W39UVK	X	0.000300	-0.00103	-1.69	0.000300	-0.00540	-7.03	OE
W9ERYC		0.00193	0.00060	0.99	0.00643	0.00074	0.96	GD
XG8VDT		0.00100	-0.00033	-0.54	0.00557	-0.00013	-0.17	CI

WebCode	Data Flag	Sample M83 Lab Mean	Sample M83 Diff. from Grand Mean	Sample M83 CPV	Sample M84 Lab Mean	Sample M84 Diff. from Grand Mean	Sample M84 CPV	Method
XV6XX7		0.00107	-0.00026	-0.43	0.00586	0.00016	0.21	CI
XY3QJN	X	0.00600	0.00467	7.68	0.00700	0.00130	1.70	CI
Y3FQEV	X	0.00440	0.00307	5.05	0.00840	0.00270	3.52	GD
Y4X8N9	X	0.00547	0.00414	6.80	0.0101	0.00444	5.78	OE
ZB8GKM		0.00160	0.00027	0.45	0.00630	0.00060	0.79	CO
ZQ63V3	X	0.00667	0.00534	8.78	0.0103	0.00464	6.04	OE
ZW7HG4		0.00210	0.00077	1.27	0.00673	0.00104	1.35	OE
ZZC7CG		0.00115	-0.00018	-0.29	0.00531	-0.00038	-0.50	IR

Summary Statistics

	Sample M83		Sample M84	
Grand Means	0.00133	Percent	0.00570	Percent
Stnd Dev Btwn Labs	0.00061	Percent	0.00077	Percent

Samples M83, M84 : AISI 310, AISI 310

Statistics based on 39 of 55 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)	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 #1643

2HRC76 (M) - Participant did not submit data for sample M83.

6YLPY9 (M) - Participant did not submit data for sample M83.

8C48VA (M) - Participant did not submit data for sample M83.

B6B722 (X) - Data for sample M84 are low. Inconsistent within the determinations of sample M83.

BXM93H (M) - Participant did not submit data for sample M83.

GHT8XT (X) - Data for both samples are high. Inconsistent within the determinations of sample M83.

LJVDHJ (X) - Data for sample M84 are extreme. Inconsistent within the determinations of sample M84.

NTRAZ4 (X) - Data for sample M83 are high. Inconsistent within the determinations of sample M83.

QANMKN (X) - Data for both samples are high. Inconsistent within the determinations of sample M84.

QW3DBH (X) - Data for sample M83 are high.

TH9E2D (X) - Data for both samples are high. Inconsistent within the determinations of sample M83.

W39UVK (X) - Data for sample M84 are low.

XY3QJN (X) - Data for sample M83 are high. Inconsistent within the determinations of both samples.

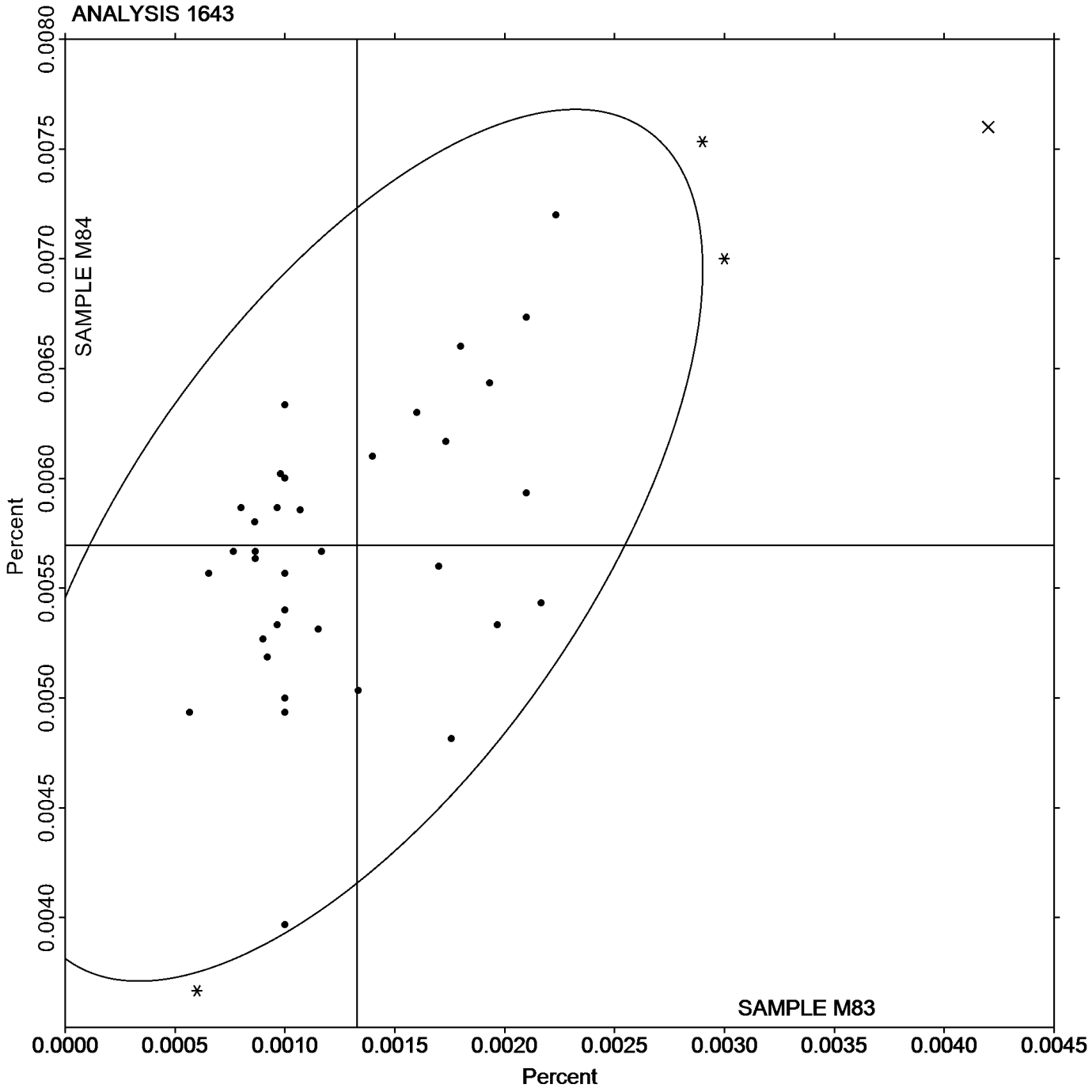
Y3FQEV (X) - Data for both samples are high.

Y4X8N9 (X) - Data for both samples are high.

ZQ63V3 (X) - Data for both samples are high. Inconsistent within the determinations of sample M83.

SAMPLE M83
0.00133 Percent

SAMPLE M84
0.00570 Percent



		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		0.6767	-0.0016	-0.08	0.4797	0.0010	0.07	OE
34KEA3		0.6783	0.0001	0.00	0.4690	-0.0097	-0.67	GD
3G9DJD		0.6263	-0.0519	-2.70	0.4510	-0.0277	-1.93	OE
47MV2Q	*	0.6394	-0.0388	-2.02	0.4420	-0.0366	-2.55	OE
47PQZH		0.6720	-0.0063	-0.33	0.4800	0.0013	0.09	XX
4V47JL		0.6767	-0.0016	-0.08	0.4737	-0.0050	-0.35	OE
6HABHB	X	0.8400	0.1617	8.40	0.6367	0.1580	10.99	OE
6LX92G		0.6593	-0.0189	-0.98	0.4630	-0.0157	-1.09	OE
6TBUWK		0.6905	0.0123	0.64	0.4902	0.0115	0.80	WD
6YLPY9		0.6987	0.0204	1.06	0.4740	-0.0047	-0.32	IC
7ZBDWV		0.6803	0.0021	0.11	0.4713	-0.0073	-0.51	IC
8C48VA		0.6617	-0.0166	-0.86	0.4477	-0.0310	-2.16	IC
8DBPPY		0.6780	-0.0003	-0.01	0.4880	0.0093	0.65	GD
8QFH4A		0.6823	0.0041	0.21	0.4803	0.0017	0.12	WD
AHEANF		0.7040	0.0257	1.34	0.4877	0.0090	0.63	OE
AZDE6X		0.6560	-0.0222	-1.15	0.4750	-0.0037	-0.26	IC
B6B722		0.6687	-0.0096	-0.50	0.4750	-0.0037	-0.26	OE
BURPCZ		0.6817	0.0034	0.18	0.4790	0.0003	0.02	WD
BXM93H		0.7110	0.0327	1.70	0.5037	0.0250	1.74	OE
C8P6PF		0.6817	0.0034	0.18	0.4837	0.0050	0.35	WD
DYV6GL		0.6723	-0.0059	-0.31	0.4780	-0.0007	-0.05	OE
F34KBP		0.6660	-0.0122	-0.64	0.4770	-0.0016	-0.11	OE
FAK3KQ		0.6833	0.0051	0.26	0.4867	0.0080	0.56	WC
GFML7M		0.7100	0.0317	1.65	0.5000	0.0213	1.48	OE
GHT8XT		0.6600	-0.0183	-0.95	0.4630	-0.0157	-1.09	OE
GJMTRK		0.6747	-0.0036	-0.18	0.4798	0.0011	0.08	OE
GZY79H		0.6600	-0.0183	-0.95	0.4700	-0.0087	-0.60	WD
H89M62		0.6982	0.0199	1.04	0.4951	0.0165	1.15	WD
HQ4QTC		0.6873	0.0091	0.47	0.4830	0.0043	0.30	OE
KL3FPN		0.6390	-0.0393	-2.04	0.4480	-0.0307	-2.13	OE
KPJQQY		0.6963	0.0181	0.94	0.4950	0.0163	1.14	OE
KUV8B2		0.6893	0.0111	0.58	0.4820	0.0033	0.23	OE
LJVDHJ	X	1.097	0.4184	21.73	0.1390	-0.3397	-23.63	XR
LMEFFG		0.7173	0.0391	2.03	0.5090	0.0303	2.11	XX
NTRAZ4		0.6770	-0.0013	-0.07	0.4880	0.0093	0.65	OE
NZ9CFX	X	0.7457	0.0674	3.50	0.4720	-0.0067	-0.46	OE
Q776KR		0.6770	-0.0013	-0.07	0.4763	-0.0023	-0.16	OE
Q8K89W		0.6777	-0.0006	-0.03	0.4793	0.0007	0.05	OE
QANMKN		0.6570	-0.0213	-1.10	0.4800	0.0013	0.09	OE
QW3DBH		0.6850	0.0067	0.35	0.4863	0.0077	0.53	OE
RY34V3		0.6747	-0.0036	-0.19	0.4887	0.0100	0.70	OE
TH9E2D		0.6740	-0.0043	-0.22	0.4750	-0.0037	-0.26	OE
U3DVZL		0.6833	0.0051	0.26	0.4800	0.0013	0.09	OE
UVJMHG		0.6780	-0.0003	-0.01	0.4810	0.0023	0.16	OE
VELCD4		0.7142	0.0360	1.87	0.5109	0.0322	2.24	OE
W39UVK	X	0.4687	-0.2096	-10.89	0.3170	-0.1617	-11.25	OE
W9ERYC		0.7010	0.0227	1.18	0.4957	0.0170	1.18	GD

WebCode	Data Flag	Sample M83 Lab Mean	Sample M83 Diff. from Grand Mean	Sample M83 CPV	Sample M84 Lab Mean	Sample M84 Diff. from Grand Mean	Sample M84 CPV	Method
XY3QJN	X	0.6091	-0.0692	-3.59	0.4236	-0.0551	-3.84	WD
Y3FQEV		0.6670	-0.0113	-0.58	0.4690	-0.0097	-0.67	GD
Y4X8N9		0.6433	-0.0349	-1.81	0.4587	-0.0200	-1.39	OE
Z8MLPH		0.6790	0.0007	0.04	0.4727	-0.0060	-0.42	OE
ZB8GKM		0.6820	0.0037	0.19	0.4720	-0.0067	-0.46	OE
ZQ63V3	*	0.7033	0.0251	1.30	0.4733	-0.0053	-0.37	OE
ZW7HG4		0.6748	-0.0035	-0.18	0.4753	-0.0033	-0.23	OE
ZZC7CG		0.6873	0.0091	0.47	0.4907	0.0120	0.84	WD

Summary Statistics

	Sample M83		Sample M84	
Grand Means	0.6783	Percent	0.4787	Percent
Stnd Dev Btwn Labs	0.0193	Percent	0.0144	Percent

Samples M83, M84 : AISI 310, AISI 310

Statistics based on 50 of 55 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)	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 #1644

6HABHB (X) - Data for both samples are high.

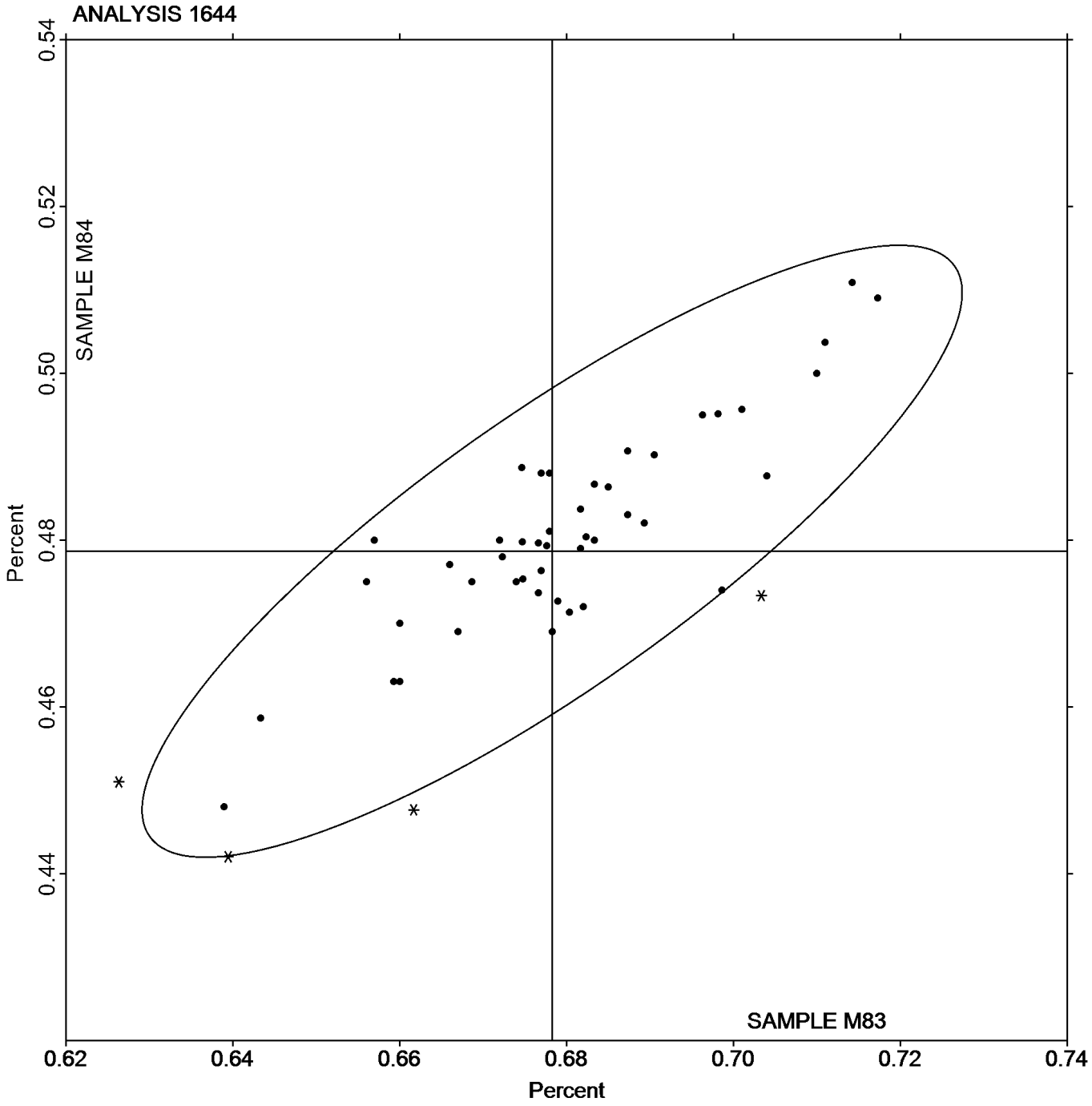
LJVDHJ (X) - Data for sample M83 are high and data for sample M84 are low. Inconsistent within the determinations of sample M84.

NZ9CFX (X) - Data for sample M83 are high.

W39UVK (X) - Data for both samples are low.

XY3QJN (X) - Data for both samples are low. Inconsistent within the determinations of sample M84.

SAMPLE M83	SAMPLE M84
0.6783 Percent	0.4787 Percent



		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		0.1023	0.0057	1.42	0.2650	-0.0053	-0.57	OE
34KEA3	X	0.1197	0.0231	5.72	0.2500	-0.0203	-2.20	GD
3G9DJD		0.1063	0.0097	2.42	0.2813	0.0111	1.20	OE
47MV2Q		0.0927	-0.0039	-0.96	0.2602	-0.0101	-1.09	OE
47PQZH		0.0973	0.0007	0.18	0.2720	0.0017	0.19	XX
4V47JL		0.0997	0.0031	0.76	0.2723	0.0021	0.22	OE
6HABHB		0.1007	0.0041	1.01	0.2460	-0.0243	-2.63	OE
6LX92G		0.0985	0.0019	0.46	0.2753	0.0051	0.55	OE
6TBUWK		0.0967	0.0001	0.03	0.2737	0.0034	0.37	WD
6YLPY9		0.0990	0.0024	0.60	0.2693	-0.0009	-0.10	IC
7ZBDWV		0.0987	0.0021	0.51	0.2677	-0.0026	-0.28	XX
8C48VA	X	0.0827	-0.0139	-3.46	0.2473	-0.0229	-2.48	IC
8DBPPY		0.0980	0.0014	0.35	0.2740	0.0037	0.40	GD
8QFH4A		0.0970	0.0004	0.10	0.2867	0.0164	1.78	IC
AZDE6X		0.0893	-0.0073	-1.81	0.2562	-0.0141	-1.53	IC
B6B722		0.0937	-0.0029	-0.73	0.2680	-0.0023	-0.25	OE
BURPCZ		0.0939	-0.0027	-0.68	0.2819	0.0116	1.26	WD
BXM93H		0.0930	-0.0036	-0.89	0.2623	-0.0079	-0.86	OE
C8P6PF		0.0967	0.0001	0.02	0.2723	0.0021	0.22	WD
DYV6GL		0.0970	0.0004	0.10	0.2700	-0.0003	-0.03	OE
F34KBP		0.1021	0.0055	1.36	0.2739	0.0036	0.39	OE
FAK3KQ		0.0943	-0.0023	-0.56	0.2867	0.0164	1.78	AA
GFML7M		0.0900	-0.0066	-1.64	0.2800	0.0097	1.05	OE
GHT8XT		0.1020	0.0054	1.34	0.2693	-0.0009	-0.10	OE
GJMTRK		0.0945	-0.0021	-0.51	0.2713	0.0010	0.11	OE
GZY79H		0.0963	-0.0003	-0.07	0.2753	0.0051	0.55	WD
H89M62		0.0936	-0.0030	-0.74	0.2597	-0.0106	-1.14	WD
HQ4QTC		0.0967	0.0001	0.02	0.2723	0.0021	0.22	OE
KL3FPN	*	0.0850	-0.0116	-2.88	0.2650	-0.0053	-0.57	XX
KPJQQY		0.0968	0.0002	0.04	0.2773	0.0071	0.77	OE
KUV8B2		0.0954	-0.0012	-0.31	0.2793	0.0091	0.98	OE
LJVDHJ	X	0.0990	0.0024	0.60	0.2197	-0.0506	-5.48	XR
LMEFFG		0.0952	-0.0014	-0.34	0.2727	0.0024	0.26	XX
NTRAZ4		0.0943	-0.0023	-0.56	0.2767	0.0064	0.69	OE
Q776KR	*	0.0955	-0.0011	-0.26	0.2443	-0.0259	-2.81	OE
Q8K89W		0.1008	0.0042	1.03	0.2751	0.0048	0.52	OE
QW3DBH		0.0939	-0.0027	-0.68	0.2670	-0.0033	-0.35	OE
RY34V3		0.1047	0.0081	2.00	0.2690	-0.0013	-0.14	OE
U3DVZL		0.1000	0.0034	0.84	0.2800	0.0097	1.05	OE
UVJMHG		0.0940	-0.0026	-0.64	0.2650	-0.0053	-0.57	OE
VELCD4		0.0965	-0.0001	-0.02	0.2752	0.0050	0.54	OE
W39UVK	X	0.0743	-0.0223	-5.52	0.2140	-0.0563	-6.09	OE
XY3QJN		0.0997	0.0031	0.76	0.2573	-0.0130	-1.40	WD
Y3FQEV	X	0.1140	0.0174	4.32	0.2780	0.0077	0.84	GD
ZB8GKM		0.0970	0.0004	0.10	0.2710	0.0007	0.08	OE
ZQ63V3	X	0.0967	0.0001	0.02	0.3233	0.0531	5.75	OE
ZW7HG4		0.0928	-0.0038	-0.95	0.2584	-0.0118	-1.28	OE

		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
ZZC7CG		0.0957	-0.0009	-0.23	0.2750	0.0047	0.51	WD

Summary Statistics

	Sample M83		Sample M84	
Grand Means	0.0966	Percent	0.2703	Percent
Stnd Dev Btwn Labs	0.0040	Percent	0.0092	Percent

Samples M83, M84 : AISI 310, AISI 310

Statistics based on 42 of 48 reporting participants

Key to Method Codes Reported by Participants

AA	Spectrometry - Atomic Absorption (AAS)	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 #1645

34KEA3 (X) - Data for sample M83 are high. Inconsistent within the determinations of both samples.

8C48VA (X) - Data for sample M83 are low.

LJVDHJ (X) - Data for sample M84 are low.

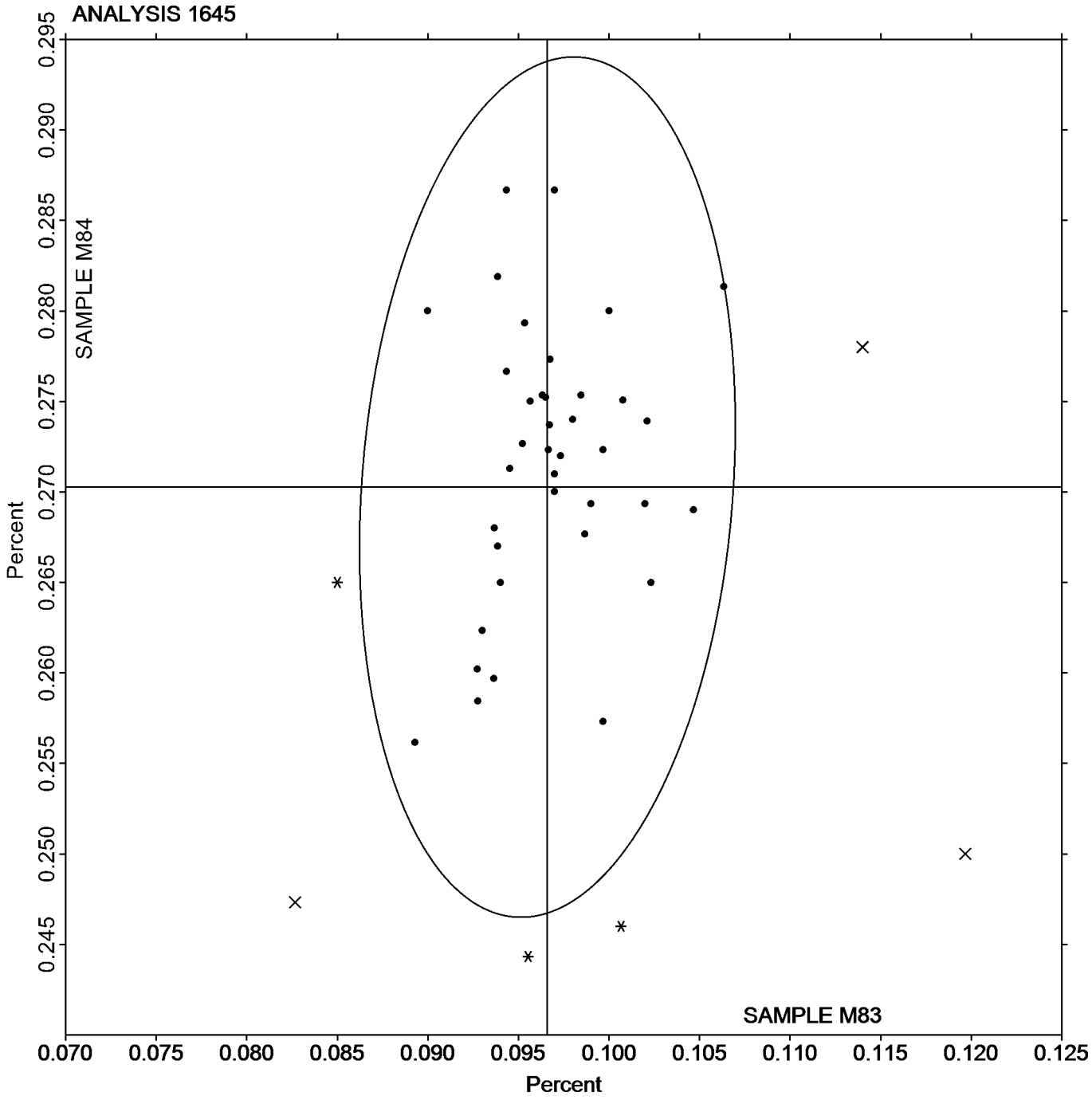
W39UVK (X) - Data for both samples are low.

Y3FQEV (X) - Data for sample M83 are high.

ZQ63V3 (X) - Data for sample M84 are high. Inconsistent within the determinations of both samples.

SAMPLE M83
0.0966 Percent

SAMPLE M84
0.2703 Percent



		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		19.45	-0.02	-0.13	20.30	0.04	0.19	OE
34KEA3	X	21.27	1.80	9.95	20.95	0.69	3.65	GD
3G9DJD		19.26	-0.21	-1.17	20.19	-0.07	-0.38	OE
47MV2Q		19.75	0.28	1.54	20.55	0.29	1.55	OE
47PQZH		19.57	0.10	0.53	20.53	0.27	1.44	XX
4V47JL		19.51	0.04	0.22	20.09	-0.17	-0.89	OE
68EKRH		19.43	-0.04	-0.23	20.27	0.01	0.04	WC
6HABHB		19.34	-0.13	-0.74	20.03	-0.23	-1.23	OE
6LX92G		19.46	-0.01	-0.05	20.26	0.00	-0.01	OE
6TBUWK		19.59	0.12	0.65	20.44	0.18	0.97	WD
6YLPY9		19.60	0.13	0.73	20.12	-0.14	-0.73	IC
7ZBDWV		19.41	-0.06	-0.34	20.20	-0.06	-0.31	IC
8C48VA		19.47	0.00	0.01	20.35	0.09	0.49	IC
8DBPPY	X	20.29	0.82	4.54	21.10	0.84	4.46	GD
8QFH4A		19.52	0.05	0.29	20.25	-0.02	-0.08	WD
AHEANF		19.36	-0.11	-0.63	20.07	-0.19	-1.00	OE
AZDE6X	*	18.94	-0.53	-2.94	19.87	-0.39	-2.06	IC
B6B722		19.44	-0.03	-0.18	20.14	-0.12	-0.63	OE
BURPCZ		19.52	0.05	0.28	20.34	0.07	0.40	WD
BXM93H		19.04	-0.43	-2.39	19.87	-0.39	-2.07	OE
C8P6PF		19.53	0.06	0.34	20.39	0.13	0.71	WD
DYV6GL		19.53	0.06	0.33	20.28	0.02	0.10	OE
F34KBP		19.52	0.05	0.27	20.29	0.03	0.16	OE
FAK3KQ		19.54	0.07	0.40	20.36	0.10	0.54	TI
GFML7M		19.30	-0.17	-0.93	20.10	-0.16	-0.84	OE
GHT8XT		19.45	-0.02	-0.10	20.22	-0.04	-0.20	OE
GJMTRK		19.70	0.23	1.27	20.30	0.04	0.21	OE
GZY79H		19.57	0.10	0.54	20.37	0.11	0.58	WD
H89M62		19.42	-0.05	-0.26	20.27	0.01	0.05	WD
HQ4QTC		19.45	-0.02	-0.13	20.16	-0.10	-0.52	OE
KL3FPN		19.30	-0.17	-0.93	20.19	-0.08	-0.40	OE
KPJQQY		19.52	0.05	0.25	20.26	0.00	-0.02	OE
KUV8B2		19.45	-0.02	-0.12	20.27	0.01	0.05	OE
LJVDHJ		19.61	0.14	0.77	20.63	0.37	1.96	XR
LMEFFG		19.52	0.05	0.29	20.38	0.12	0.63	XX
NTRAZ4		19.63	0.16	0.86	20.09	-0.17	-0.92	OE
NZ9CFX		19.44	-0.03	-0.19	20.36	0.10	0.53	OE
Q776KR		19.49	0.02	0.12	20.32	0.06	0.31	OE
Q8K89W		19.57	0.10	0.54	20.35	0.09	0.47	OE
QANMKN		19.63	0.16	0.88	20.25	-0.01	-0.04	OE
QW3DBH		19.15	-0.32	-1.79	19.89	-0.37	-1.97	OE
RY34V3		19.54	0.07	0.38	20.38	0.12	0.65	OE
TH9E2D		19.52	0.05	0.30	20.57	0.31	1.65	OE
U3DVZL		19.34	-0.13	-0.70	20.39	0.13	0.68	WD
UVJMHG		19.63	0.16	0.88	20.04	-0.22	-1.17	OE
VELCD4		19.34	-0.13	-0.70	20.05	-0.21	-1.13	OE
W39UVK	X	18.24	-1.23	-6.82	19.01	-1.25	-6.65	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 1646

Corrosion Resistant Steel, NICKEL (Ni)
NICKEL (Ni)

Cycle 138
2nd Qtr
2022

		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
W9ERYC		19.70	0.23	1.27	20.20	-0.06	-0.32	GD
XY3QJN		19.50	0.03	0.19	20.42	0.16	0.82	WD
Y3FQEV		19.30	-0.17	-0.94	20.20	-0.06	-0.32	GD
Y4X8N9		19.68	0.21	1.18	20.46	0.20	1.04	OE
Z8MLPH		19.78	0.31	1.73	20.60	0.34	1.78	OE
ZB8GKM	*	18.90	-0.57	-3.16	19.76	-0.50	-2.66	OE
ZQ63V3	X	19.80	0.33	1.80	22.48	2.22	11.79	OE
ZW7HG4		19.64	0.17	0.94	20.44	0.18	0.95	OE
ZZC7CG		19.61	0.14	0.75	20.44	0.18	0.95	WD

Summary Statistics

	Sample M83		Sample M84	
Grand Means	19.47	Percent	20.26	Percent
Stnd Dev Btwn Labs	0.18	Percent	0.19	Percent

Samples M83, M84 : AISI 310, AISI 310

Statistics based on 52 of 56 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)	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 #1646

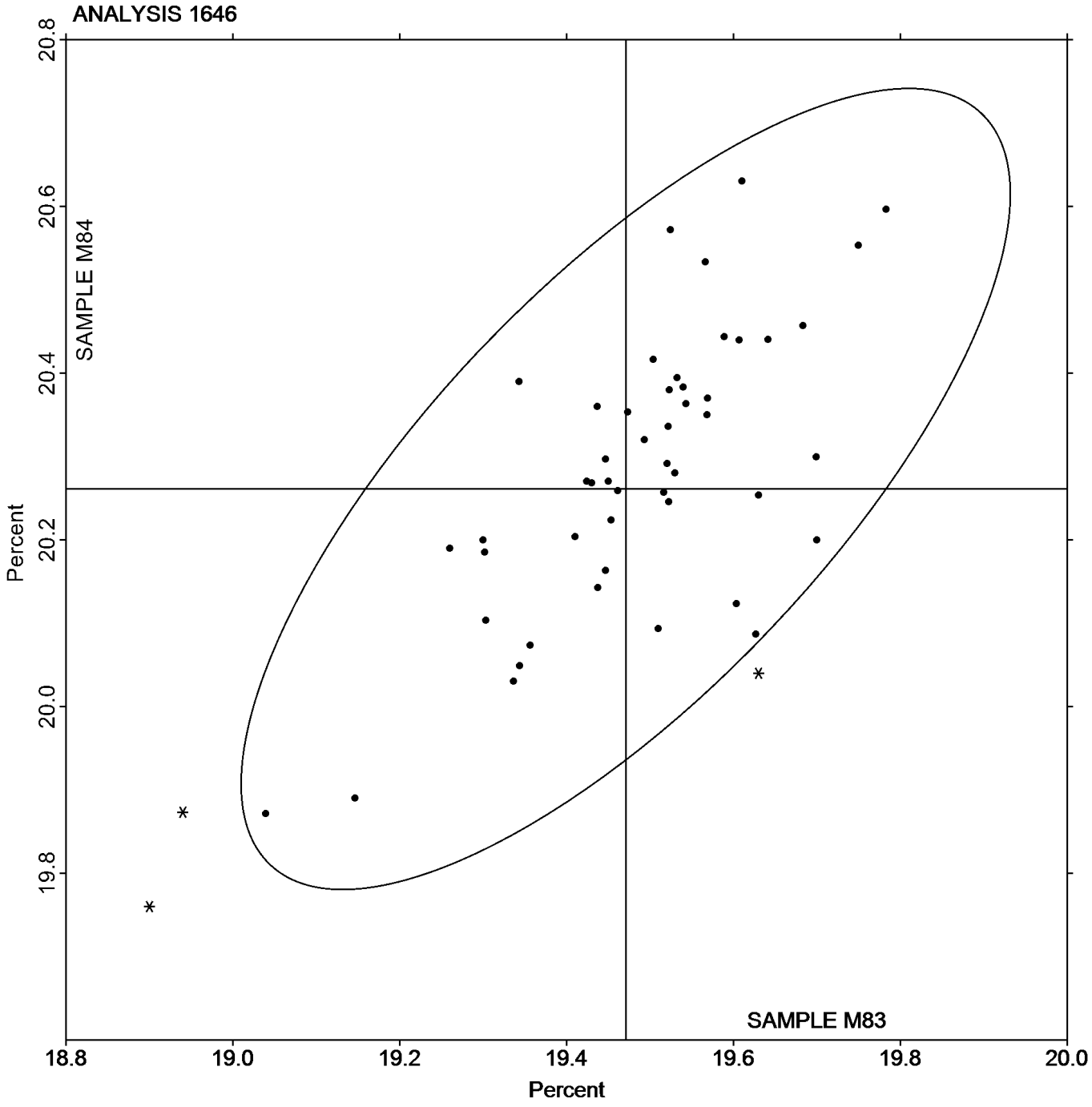
34KEA3 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample M83.

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

W39UVK (X) - Data for both samples are low. Possible Systematic Error.

ZQ63V3 (X) - Data for sample M84 are high. Inconsistent within the determinations of both samples.

SAMPLE M83	SAMPLE M84
19.47 Percent	20.26 Percent



		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		24.42	0.03	0.13	24.71	-0.02	-0.09	OE
34KEA3	*	23.81	-0.59	-2.82	24.30	-0.43	-2.49	GD
3G9DJD		24.05	-0.35	-1.68	24.80	0.07	0.42	OE
47MV2Q	*	24.84	0.44	2.13	24.75	0.02	0.13	OE
47PQZH		24.33	-0.07	-0.32	24.52	-0.20	-1.18	XX
4V47JL		24.56	0.16	0.78	24.70	-0.02	-0.13	OE
68EKRH		24.40	0.01	0.04	24.76	0.03	0.20	WC
6HABHB		23.93	-0.47	-2.25	24.72	0.00	-0.01	OE
6LX92G		24.68	0.28	1.37	25.07	0.34	2.00	OE
6TBUWK		24.45	0.06	0.28	24.82	0.09	0.53	WD
6YLPY9	*	24.92	0.52	2.53	24.64	-0.08	-0.48	IC
7ZBDWV		24.47	0.07	0.34	24.79	0.07	0.40	IC
8C48VA		24.58	0.18	0.87	24.80	0.08	0.46	IC
8DBPPY		24.50	0.10	0.50	24.50	-0.23	-1.32	GD
8QFH4A		24.51	0.11	0.54	24.76	0.03	0.17	WD
AHEANF		24.13	-0.27	-1.28	24.46	-0.27	-1.57	OE
AZDE6X	*	23.99	-0.41	-1.97	24.26	-0.47	-2.72	IC
B6B722		24.47	0.07	0.35	24.78	0.05	0.30	OE
BURPCZ		24.46	0.06	0.29	24.76	0.04	0.23	WD
BXM93H		24.42	0.02	0.11	24.79	0.06	0.38	OE
C8P6PF		24.41	0.02	0.09	24.75	0.02	0.14	WD
DYV6GL		24.42	0.02	0.12	24.85	0.13	0.75	OE
F34KBP		24.24	-0.16	-0.76	24.53	-0.20	-1.15	OE
FAK3KQ		24.29	-0.11	-0.51	24.46	-0.27	-1.57	TI
GFML7M		24.31	-0.08	-0.40	24.63	-0.10	-0.58	OE
GHT8XT		24.55	0.15	0.73	24.88	0.16	0.93	OE
GJMTRK		24.45	0.06	0.28	24.87	0.15	0.85	OE
GZY79H		24.46	0.07	0.32	24.63	-0.10	-0.56	WD
H89M62		24.58	0.18	0.89	24.96	0.24	1.39	WD
HQ4QTC		24.47	0.08	0.38	24.80	0.07	0.44	OE
KL3FPN		24.39	-0.01	-0.05	24.73	0.01	0.03	OE
KPJQQY		24.30	-0.10	-0.46	24.69	-0.04	-0.21	OE
KUV8B2		24.46	0.06	0.30	24.75	0.02	0.13	OE
LJVDHJ		24.14	-0.26	-1.23	24.53	-0.20	-1.14	XR
LMEFFG		24.54	0.14	0.68	24.80	0.08	0.45	XX
NTRAZ4		24.51	0.12	0.57	24.93	0.20	1.18	OE
NZ9CFX		24.49	0.09	0.44	24.81	0.08	0.50	OE
Q776KR		24.30	-0.09	-0.44	24.65	-0.08	-0.46	OE
Q8K89W		24.46	0.07	0.31	24.86	0.13	0.79	OE
QANMKN		24.31	-0.08	-0.40	24.69	-0.04	-0.22	OE
QW3DBH		24.66	0.27	1.29	25.02	0.29	1.71	OE
RY34V3		24.34	-0.06	-0.27	24.64	-0.09	-0.52	OE
TH9E2D		24.45	0.05	0.25	24.39	-0.33	-1.94	OE
U3DVZL		24.19	-0.21	-1.01	24.84	0.11	0.67	WD
UVJMHG		24.06	-0.34	-1.62	24.51	-0.22	-1.26	OE
VELCD4		24.48	0.08	0.41	24.93	0.20	1.17	OE
W39UVK		24.17	-0.22	-1.07	24.77	0.04	0.24	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 1647

Corrosion Resistant Steel, CHROMIUM (Cr)
CHROMIUM (Cr)

Cycle 138
2nd Qtr
2022

		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
W9ERYC		24.80	0.40	1.95	24.93	0.21	1.22	GD
XY3QJN		24.30	-0.09	-0.45	24.69	-0.03	-0.19	WD
Y3FQEV		24.80	0.40	1.95	24.90	0.17	1.02	GD
Z8MLPH		24.34	-0.06	-0.27	24.70	-0.02	-0.13	OE
ZB8GKM		24.31	-0.09	-0.41	24.65	-0.08	-0.44	OE
ZQ63V3	X	24.28	-0.11	-0.54	23.84	-0.89	-5.20	OE
ZW7HG4		24.39	-0.01	-0.04	24.69	-0.04	-0.21	OE
ZZC7CG		24.60	0.21	1.01	24.94	0.21	1.25	WD

Summary Statistics

	Sample M83		Sample M84	
Grand Means	24.40	Percent	24.73	Percent
Stnd Dev Btwn Labs	0.21	Percent	0.17	Percent

Samples M83, M84 : AISI 310, AISI 310

Statistics based on 53 of 55 reporting participants

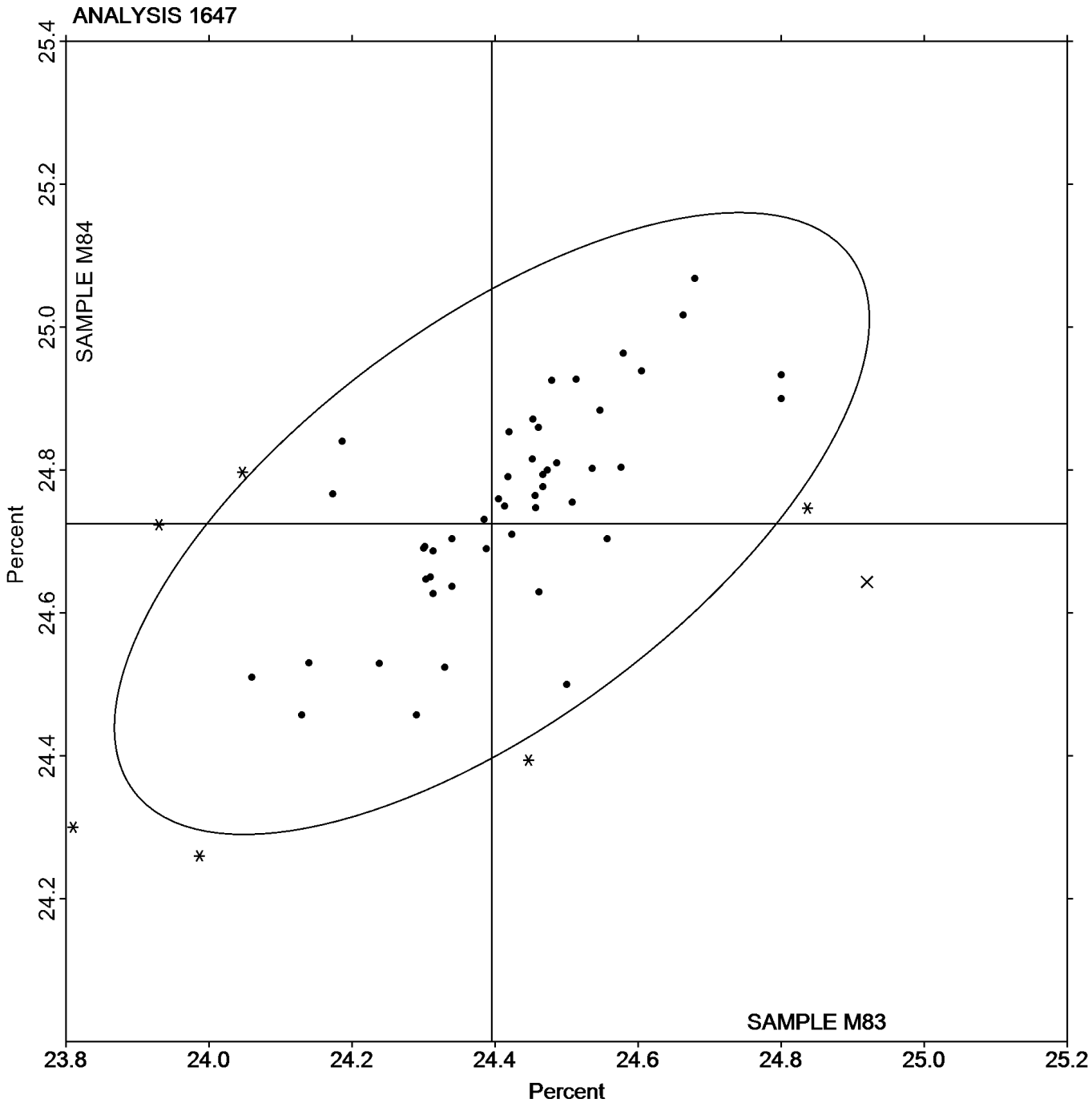
Key to Method Codes Reported by Participants

GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	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 #1647

ZQ63V3 (X) - Data for sample M84 are low. Inconsistent within the determinations of sample M84.

SAMPLE M83	SAMPLE M84
24.40 Percent	24.73 Percent



		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		0.5050	0.0134	0.78	0.3890	0.0240	1.94	OE
34KEA3		0.4893	-0.0023	-0.13	0.3670	0.0020	0.16	GD
3G9DJD		0.5207	0.0290	1.69	0.3867	0.0217	1.75	OE
47MV2Q		0.4521	-0.0395	-2.30	0.3519	-0.0131	-1.06	OE
47PQZH		0.5017	0.0100	0.58	0.3720	0.0070	0.57	XX
4V47JL		0.4977	0.0060	0.35	0.3547	-0.0103	-0.84	OE
6HABHB		0.4800	-0.0116	-0.68	0.3667	0.0017	0.13	OE
6LX92G		0.4983	0.0067	0.39	0.3693	0.0043	0.35	OE
6TBUWK		0.4922	0.0005	0.03	0.3636	-0.0014	-0.11	WD
6YLPY9		0.5070	0.0154	0.89	0.3707	0.0057	0.46	IC
7ZBDWV		0.5023	0.0107	0.62	0.3663	0.0013	0.11	IC
8C48VA		0.4673	-0.0243	-1.41	0.3430	-0.0220	-1.78	IC
8DBPPY		0.5070	0.0154	0.89	0.3900	0.0250	2.02	GD
8QFH4A		0.4957	0.0040	0.23	0.3520	-0.0130	-1.05	WD
AHEANF		0.4867	-0.0050	-0.29	0.3563	-0.0087	-0.70	OE
AZDE6X		0.4696	-0.0221	-1.28	0.3451	-0.0199	-1.62	XX
B6B722	X	0.5690	0.0774	4.49	0.4390	0.0740	5.99	OE
BURPCZ		0.4980	0.0064	0.37	0.3623	-0.0027	-0.22	WD
BXM93H		0.4953	0.0037	0.21	0.3653	0.0003	0.03	OE
C8P6PF		0.4917	0.0000	0.00	0.3653	0.0003	0.03	WD
DYV6GL		0.4950	0.0034	0.20	0.3790	0.0140	1.13	OE
F34KBP		0.4972	0.0056	0.32	0.3813	0.0163	1.32	OE
FAK3KQ		0.4633	-0.0283	-1.64	0.3533	-0.0117	-0.95	AA
GFML7M		0.4900	-0.0016	-0.10	0.3600	-0.0050	-0.41	OE
GHT8XT		0.5080	0.0164	0.95	0.3917	0.0267	2.16	OE
GJMTRK		0.4812	-0.0104	-0.60	0.3511	-0.0139	-1.12	OE
GZY79H		0.4837	-0.0080	-0.46	0.3537	-0.0113	-0.92	WD
H89M62		0.5050	0.0134	0.78	0.3727	0.0077	0.62	WD
HQ4QTC		0.4883	-0.0033	-0.19	0.3640	-0.0010	-0.08	OE
KL3FPN		0.4710	-0.0206	-1.20	0.3480	-0.0170	-1.38	OE
KPJQQY		0.4693	-0.0223	-1.30	0.3560	-0.0090	-0.73	XX
KUV8B2		0.4773	-0.0143	-0.83	0.3617	-0.0033	-0.27	OE
LJVDHJ		0.4747	-0.0170	-0.99	0.3580	-0.0070	-0.57	XR
LMEFFG		0.4976	0.0059	0.34	0.3643	-0.0007	-0.06	XX
NTRAZ4	*	0.5317	0.0400	2.32	0.3797	0.0147	1.19	OE
Q776KR		0.4800	-0.0116	-0.68	0.3603	-0.0047	-0.38	OE
Q8K89W		0.4909	-0.0008	-0.04	0.3600	-0.0050	-0.41	OE
QANMKN		0.4823	-0.0093	-0.54	0.3583	-0.0067	-0.54	OE
QW3DBH		0.5183	0.0267	1.55	0.3810	0.0160	1.30	OE
RY34V3		0.4727	-0.0190	-1.10	0.3617	-0.0033	-0.27	OE
U3DVZL		0.5200	0.0284	1.65	0.3800	0.0150	1.21	WD
UVJMHG		0.5090	0.0174	1.01	0.3760	0.0110	0.89	OE
VELCD4		0.4761	-0.0156	-0.90	0.3598	-0.0052	-0.43	OE
W39UVK	X	0.3910	-0.1006	-5.84	0.2807	-0.0843	-6.83	OE
W9ERYC		0.5003	0.0087	0.50	0.3650	0.0000	0.00	GD
XY3QJN		0.4828	-0.0088	-0.51	0.3536	-0.0114	-0.92	WD
Y3FQEV		0.4650	-0.0266	-1.55	0.3480	-0.0170	-1.38	GD

Fasteners and Metals Interlaboratory Testing Program

Analysis 1648

Corrosion Resistant Steel, MOLYBDENUM (Mo)

MOLYBDENUM (Mo)

		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
Y4X8N9		0.4813	-0.0103	-0.60	0.3717	0.0067	0.54	OE
Z8MLPH		0.5207	0.0290	1.69	0.3780	0.0130	1.05	OE
ZB8GKM		0.5210	0.0294	1.71	0.3840	0.0190	1.54	OE
ZQ63V3		0.4933	0.0017	0.10	0.3533	-0.0117	-0.95	OE
ZW7HG4		0.4744	-0.0173	-1.00	0.3510	-0.0140	-1.14	OE
ZZC7CG		0.4947	0.0030	0.18	0.3623	-0.0027	-0.22	WD

Summary Statistics

	Sample M83		Sample M84	
Grand Means	0.4916	Percent	0.3650	Percent
Stnd Dev Btwn Labs	0.0172	Percent	0.0123	Percent

Samples M83, M84 : AISI 310, AISI 310

Statistics based on 51 of 53 reporting participants

Key to Method Codes Reported by Participants

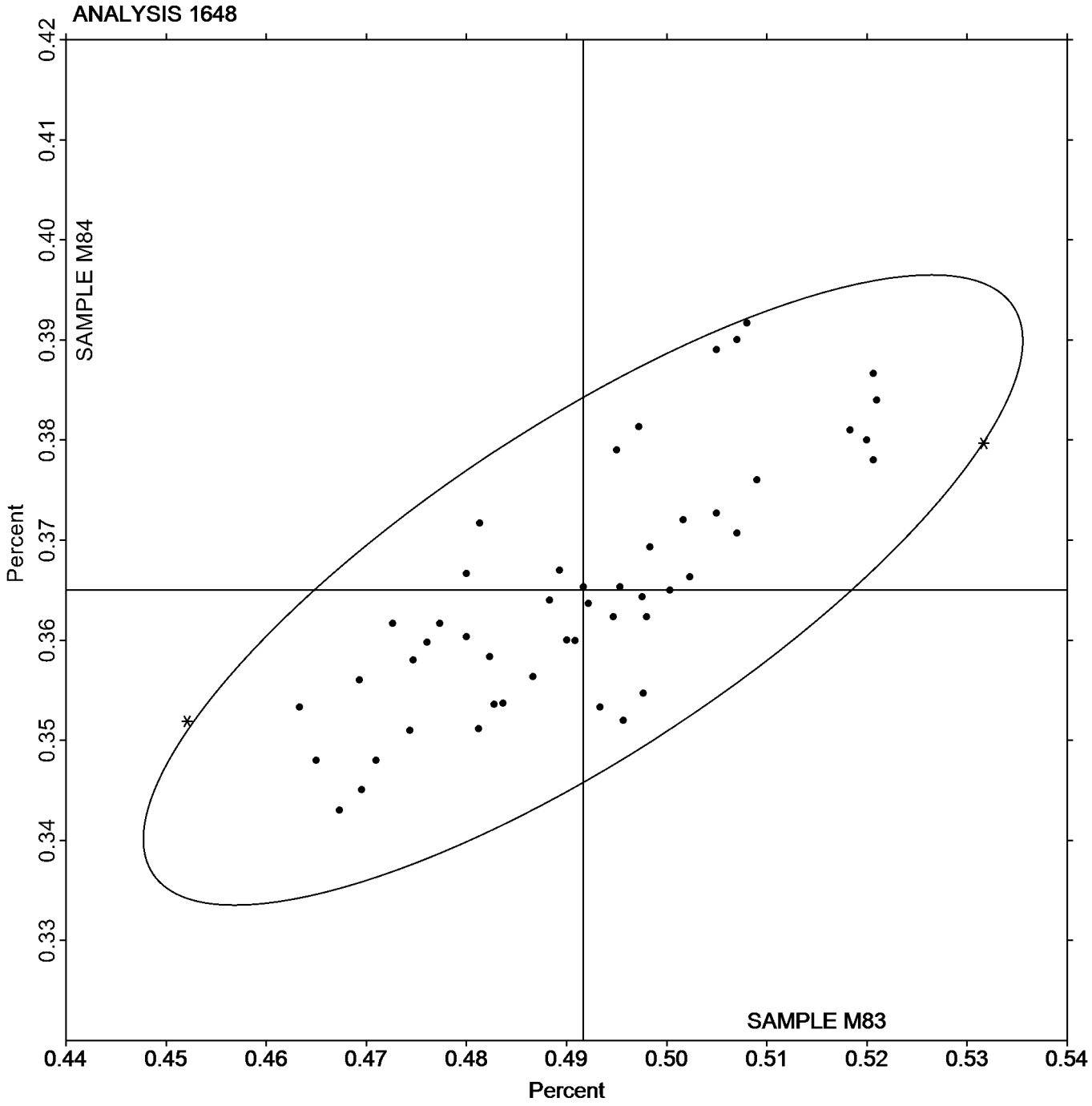
AA	Spectrometry - Atomic Absorption (AAS)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used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

Comments on Assigned Data Flags for Test #1648

B6B722 (X) - Data for both samples are high.

W39UVK (X) - Data for both samples are low.

SAMPLE M83	SAMPLE M84
0.4916 Percent	0.3650 Percent



		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		0.2697	0.0002	0.02	0.2787	0.0024	0.21	OE
34KEA3		0.2620	-0.0075	-0.72	0.2717	-0.0046	-0.42	GD
3G9DJD	*	0.2870	0.0175	1.68	0.2710	-0.0053	-0.48	OE
47MV2Q		0.2670	-0.0025	-0.24	0.2806	0.0043	0.39	OE
47PQZH		0.2727	0.0032	0.30	0.2823	0.0060	0.55	XX
4V47JL	*	0.2627	-0.0068	-0.66	0.2573	-0.0190	-1.72	OE
6HABHB		0.2757	0.0062	0.59	0.2750	-0.0013	-0.12	OE
6LX92G		0.2617	-0.0078	-0.75	0.2733	-0.0030	-0.27	OE
6TBUWK		0.2741	0.0046	0.44	0.2820	0.0057	0.52	WD
6YLPY9		0.2733	0.0038	0.37	0.2793	0.0030	0.27	IC
7ZBDWV		0.2700	0.0005	0.05	0.2773	0.0010	0.09	XX
8C48VA		0.2633	-0.0062	-0.59	0.2700	-0.0063	-0.57	IC
8DBPPY		0.2790	0.0095	0.91	0.2850	0.0087	0.79	GD
8QFH4A		0.2693	-0.0002	-0.02	0.2760	-0.0003	-0.03	WD
AHEANF		0.2770	0.0075	0.72	0.2793	0.0030	0.27	OE
AZDE6X		0.2580	-0.0115	-1.11	0.2749	-0.0014	-0.13	IC
B6B722	X	0.2750	0.0055	0.53	0.3193	0.0430	3.90	OE
BURPCZ		0.2657	-0.0038	-0.37	0.2703	-0.0060	-0.54	WD
BXM93H		0.2593	-0.0102	-0.98	0.2670	-0.0093	-0.84	OE
C8P6PF		0.2660	-0.0035	-0.34	0.2737	-0.0026	-0.24	WD
DYV6GL		0.2680	-0.0015	-0.14	0.2750	-0.0013	-0.12	OE
F34KBP		0.2696	0.0001	0.01	0.2765	0.0002	0.02	OE
FAK3KQ		0.2667	-0.0028	-0.27	0.2733	-0.0030	-0.27	AA
GFML7M		0.2667	-0.0028	-0.27	0.2700	-0.0063	-0.57	OE
GHT8XT		0.2757	0.0062	0.59	0.2817	0.0054	0.49	OE
GJMTRK		0.2690	-0.0005	-0.04	0.2740	-0.0023	-0.21	OE
GZY79H		0.2700	0.0005	0.05	0.2700	-0.0063	-0.57	WD
H89M62	*	0.2749	0.0054	0.52	0.2696	-0.0067	-0.60	WD
HQ4QTC		0.2660	-0.0035	-0.34	0.2730	-0.0033	-0.30	OE
KL3FPN		0.2480	-0.0215	-2.07	0.2550	-0.0213	-1.93	OE
KPJQQY		0.2753	0.0058	0.56	0.2830	0.0067	0.61	OE
KUV8B2		0.2753	0.0058	0.56	0.2827	0.0064	0.58	OE
LJVDHJ		0.2813	0.0118	1.14	0.2897	0.0134	1.21	XR
LMEFFG		0.2868	0.0173	1.66	0.2949	0.0186	1.68	XX
NTRAZ4	X	0.2287	-0.0408	-3.93	0.2467	-0.0296	-2.68	OE
Q776KR		0.2697	0.0002	0.02	0.2767	0.0004	0.03	OE
Q8K89W		0.2600	-0.0095	-0.91	0.2664	-0.0099	-0.89	OE
QANMKN		0.2547	-0.0148	-1.43	0.2643	-0.0120	-1.08	OE
QW3DBH		0.2830	0.0135	1.30	0.2900	0.0137	1.24	OE
RY34V3	*	0.3020	0.0325	3.13	0.3107	0.0344	3.11	OE
TH9E2D	*	0.2970	0.0275	2.65	0.2820	0.0057	0.52	OE
U3DVZL		0.2767	0.0072	0.69	0.2800	0.0037	0.34	WD
UVJMHG		0.2720	0.0025	0.24	0.2860	0.0097	0.88	OE
VELCD4		0.2749	0.0054	0.52	0.2845	0.0082	0.75	OE
W39UVK		0.2457	-0.0238	-2.29	0.2543	-0.0220	-1.99	OE
W9ERYC		0.2687	-0.0008	-0.08	0.2770	0.0007	0.06	GD
XY3QJN		0.2693	-0.0002	-0.02	0.2866	0.0103	0.93	WD

Fasteners and Metals Interlaboratory Testing Program

Analysis 1649

Corrosion Resistant Steel, COPPER (Cu)
COPPER (Cu)

WebCode	Data Flag	Sample M83 Lab Mean	Sample M83 Diff. from Grand Mean	Sample M83 CPV	Sample M84 Lab Mean	Sample M84 Diff. from Grand Mean	Sample M84 CPV	Method
Y3FQEV		0.2830	0.0135	1.30	0.2900	0.0137	1.24	GD
Y4X8N9		0.2840	0.0145	1.40	0.2943	0.0180	1.63	OE
Z8MLPH		0.2667	-0.0028	-0.27	0.2680	-0.0083	-0.75	OE
ZB8GKM		0.2570	-0.0125	-1.20	0.2650	-0.0113	-1.02	OE
ZQ63V3		0.2667	-0.0028	-0.27	0.2667	-0.0096	-0.87	OE
ZW7HG4		0.2434	-0.0261	-2.51	0.2489	-0.0274	-2.48	OE
ZZC7CG		0.2780	0.0085	0.82	0.2833	0.0070	0.64	WD

Summary Statistics

	Sample M83		Sample M84	
Grand Means	0.2695	Percent	0.2763	Percent
Stnd Dev Btwn Labs	0.0104	Percent	0.0110	Percent

Samples M83, M84 : AISI 310, AISI 310

Statistics based on 50 of 54 reporting participants

Key to Method Codes Reported by Participants

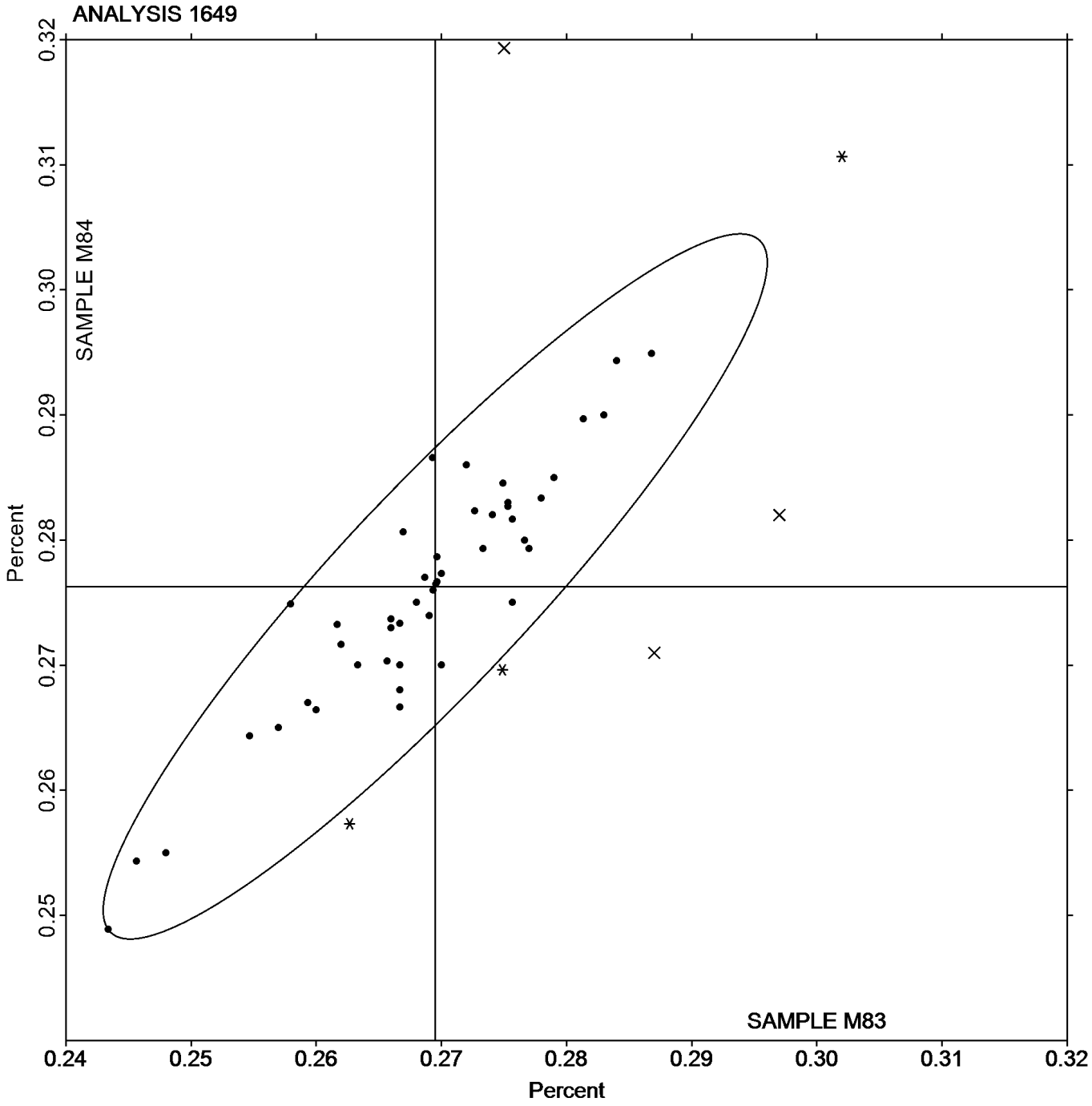
AA	Spectrometry - Atomic Absorption (AAS)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used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

Comments on Assigned Data Flags for Test #1649

B6B722 (X) - Data for sample M84 are high.

NTRAZ4 (X) - Data for sample M83 are low.

SAMPLE M83	SAMPLE M84
0.2695 Percent	0.2763 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 1650

Corrosion Resistant Steel, NITROGEN (N)

NITROGEN (N)

Cycle 138
2nd Qtr
2022

		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		0.0582	0.0021	0.72	0.0781	0.0022	0.46	OE
4V47JL		0.0613	0.0052	1.81	0.0842	0.0083	1.69	CI
6LX92G		0.0565	0.0004	0.15	0.0692	-0.0067	-1.36	OE
6TBUWK		0.0556	-0.0005	-0.17	0.0763	0.0004	0.08	CO
7ZBDWV		0.0571	0.0010	0.34	0.0758	-0.0001	-0.01	CO
8C48VA		0.0573	0.0012	0.43	0.0783	0.0024	0.50	CO
8QFH4A		0.0581	0.0020	0.68	0.0782	0.0023	0.47	IR
AZDE6X		0.0567	0.0006	0.22	0.0779	0.0020	0.40	XX
BURPCZ		0.0578	0.0017	0.58	0.0769	0.0010	0.20	CO
C8P6PF		0.0567	0.0006	0.20	0.0767	0.0008	0.16	XX
DYV6GL		0.0540	-0.0021	-0.72	0.0730	-0.0029	-0.59	OE
F34KBP		0.0499	-0.0062	-2.14	0.0645	-0.0114	-2.31	OE
FAK3KQ		0.0570	0.0009	0.32	0.0763	0.0004	0.09	XX
GFML7M		0.0563	0.0002	0.07	0.0786	0.0027	0.54	CO
GHT8XT		0.0555	-0.0006	-0.21	0.0742	-0.0017	-0.35	OE
GJMTRK		0.0553	-0.0008	-0.28	0.0758	-0.0001	-0.03	OE
GZY79H	X	0.0546	-0.0015	-0.52	0.0540	-0.0219	-4.45	OE
H89M62		0.0579	0.0018	0.64	0.0784	0.0025	0.51	CO
HQ4QTC		0.0546	-0.0015	-0.51	0.0812	0.0053	1.09	CI
KL3FPN		0.0510	-0.0051	-1.76	0.0720	-0.0039	-0.79	OE
KPJQQY		0.0488	-0.0073	-2.51	0.0658	-0.0101	-2.06	OE
LMEFFG		0.0577	0.0016	0.56	0.0780	0.0021	0.44	XX
Q776KR		0.0545	-0.0016	-0.54	0.0740	-0.0019	-0.39	OE
Q8K89W	X	0.1074	0.0513	17.70	0.1974	0.1215	24.76	OE
QW3DBH	X	0.0671	0.0110	3.81	0.0844	0.0085	1.74	OE
U3DVZL		0.0580	0.0019	0.66	0.0780	0.0021	0.43	CO
UVJMHG		0.0530	-0.0031	-1.07	0.0650	-0.0109	-2.22	OE
VELCD4		0.0537	-0.0024	-0.82	0.0778	0.0019	0.39	OE
W39UVK	X	0.0277	-0.0284	-9.81	0.0223	-0.0536	-10.91	OE
XV6XX7		0.0603	0.0042	1.47	0.0830	0.0071	1.44	CO
XY3QJN		0.0556	-0.0005	-0.17	0.0732	-0.0027	-0.56	OE
ZQ63V3		0.0577	0.0016	0.55	0.0783	0.0024	0.50	CO
ZZC7CG		0.0604	0.0043	1.50	0.0823	0.0064	1.31	CO

Summary Statistics

	Sample M83		Sample M84	
Grand Means	0.0561	Percent	0.0759	Percent
Stnd Dev Btwn Labs	0.0029	Percent	0.0049	Percent

Samples M83, M84 : AISI 310, AISI 310

Statistics based on 29 of 33 reporting participants

Key to Method Codes Reported by Participants

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

Comments on Assigned Data Flags for Test #1650

GZY79H (X) - Data for sample M84 are low.

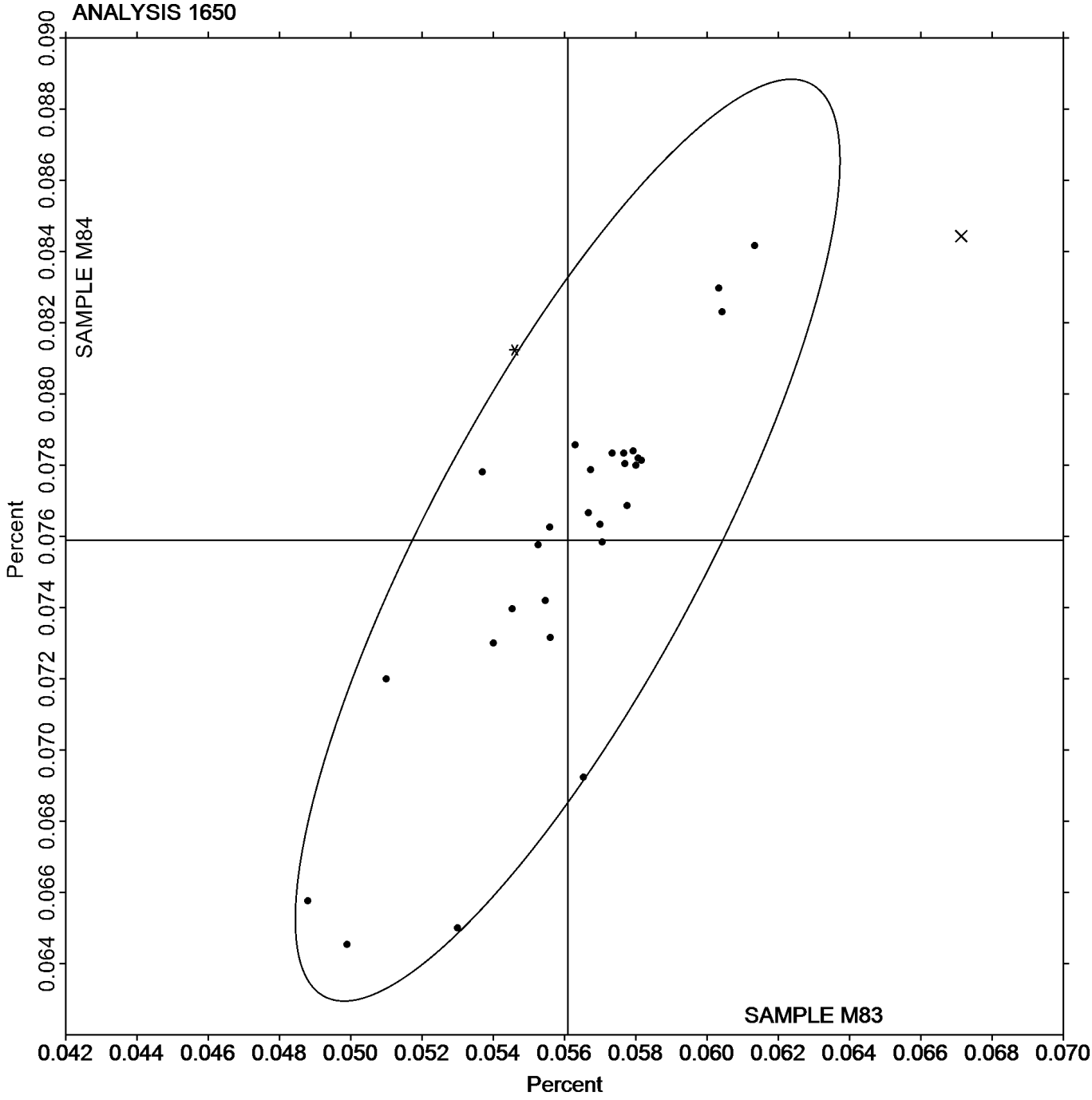
Q8K89W (X) - Data for both samples are high. Inconsistent within the determinations of both samples.

QW3DBH (X) - Data for sample M83 are high. Inconsistent within the determinations of sample M84.

W39UVK (X) - Data for both samples are low.

SAMPLE M83
0.0561 Percent

SAMPLE M84
0.0759 Percent



		Sample M83			Sample M84			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
2HRC76		0.0210	-0.0124	-0.94	0.1170	0.0002	0.01	OE
34KEA3		0.0433	0.0100	0.76	0.1060	-0.0108	-0.37	GD
3G9DJD		0.0464	0.0130	0.99	0.1423	0.0256	0.88	OE
47MV2Q		0.0242	-0.0092	-0.70	0.1194	0.0026	0.09	OE
47PQZH		0.0273	-0.0060	-0.46	0.1273	0.0106	0.36	XX
6HABHB		0.0450	0.0116	0.88	0.1173	0.0006	0.02	OE
6LX92G		0.0430	0.0096	0.73	0.0946	-0.0221	-0.76	OE
6TBUWK		0.0498	0.0164	1.25	0.1482	0.0314	1.08	WD
6YLPY9		0.0268	-0.0065	-0.50	0.1247	0.0079	0.27	IC
7ZBDWV		0.0557	0.0223	1.70	0.1493	0.0326	1.12	IC
8DBPPY		0.0410	0.0076	0.58	0.1310	0.0142	0.49	GD
8QFH4A		0.0298	-0.0035	-0.27	0.1281	0.0113	0.39	IC
AZDE6X		0.0304	-0.0030	-0.23	0.1258	0.0090	0.31	IC
B6B722	*	0.0150	-0.0184	-1.40	0.0313	-0.0854	-2.94	OE
BURPCZ		0.0273	-0.0060	-0.46	0.1104	-0.0064	-0.22	WD
C8P6PF		0.00633	-0.0270	-2.06	0.0980	-0.0188	-0.65	WD
DYV6GL		0.0650	0.0316	2.41	0.1770	0.0602	2.07	OE
F34KBP		0.0328	-0.0006	-0.05	0.1053	-0.0115	-0.40	OE
FAK3KQ		0.0400	0.0066	0.50	0.1300	0.0132	0.46	IC
GFML7M		0.0262	-0.0071	-0.54	0.1119	-0.0049	-0.17	XX
GHT8XT		0.0310	-0.0024	-0.18	0.1017	-0.0151	-0.52	OE
GJMTRK		0.0450	0.0116	0.88	0.1150	-0.0018	-0.06	OE
GZY79H		0.0318	-0.0016	-0.12	0.1149	-0.0019	-0.06	OE
H89M62		0.0408	0.0074	0.56	0.1455	0.0287	0.99	XX
HQ4QTC		0.0350	0.0016	0.12	0.1340	0.0172	0.59	OE
KL3FPN		0.0590	0.0256	1.95	0.1430	0.0262	0.90	OE
KPJQQY		0.0230	-0.0104	-0.79	0.1037	-0.0131	-0.45	OE
LMEFFG		0.0257	-0.0077	-0.59	0.1290	0.0122	0.42	XX
NTRAZ4		0.0438	0.0104	0.79	0.1277	0.0109	0.38	OE
Q776KR		0.0298	-0.0036	-0.27	0.1113	-0.0054	-0.19	OE
Q8K89W	*	0.0152	-0.0182	-1.39	0.0372	-0.0795	-2.74	OE
QW3DBH		0.0172	-0.0161	-1.23	0.0766	-0.0402	-1.38	OE
RY34V3		0.0314	-0.0020	-0.15	0.1370	0.0202	0.70	OE
U3DVZL		0.0100	-0.0234	-1.78	0.0500	-0.0668	-2.30	OE
UVJMHG		0.0279	-0.0055	-0.42	0.1410	0.0242	0.83	OE
VELCD4		0.0421	0.0088	0.67	0.1375	0.0207	0.71	OE
W39UVK	X	0.1433	0.1100	8.36	0.2520	0.1352	4.65	OE
Y3FQEV		0.0436	0.0102	0.78	0.1190	0.0022	0.08	GD
ZW7HG4		0.0189	-0.0145	-1.10	0.1068	-0.0099	-0.34	OE
ZZC7CG		0.0343	0.0010	0.07	0.1277	0.0109	0.38	WD

Summary Statistics

	Sample M83		Sample M84	
Grand Means	0.0334	Percent	0.1168	Percent
Stnd Dev Btwn Labs	0.0131	Percent	0.0291	Percent

Samples M83, M84 : AISI 310, AISI 310

Statistics based on 39 of 40 reporting participants

Key to Method Codes Reported by Participants

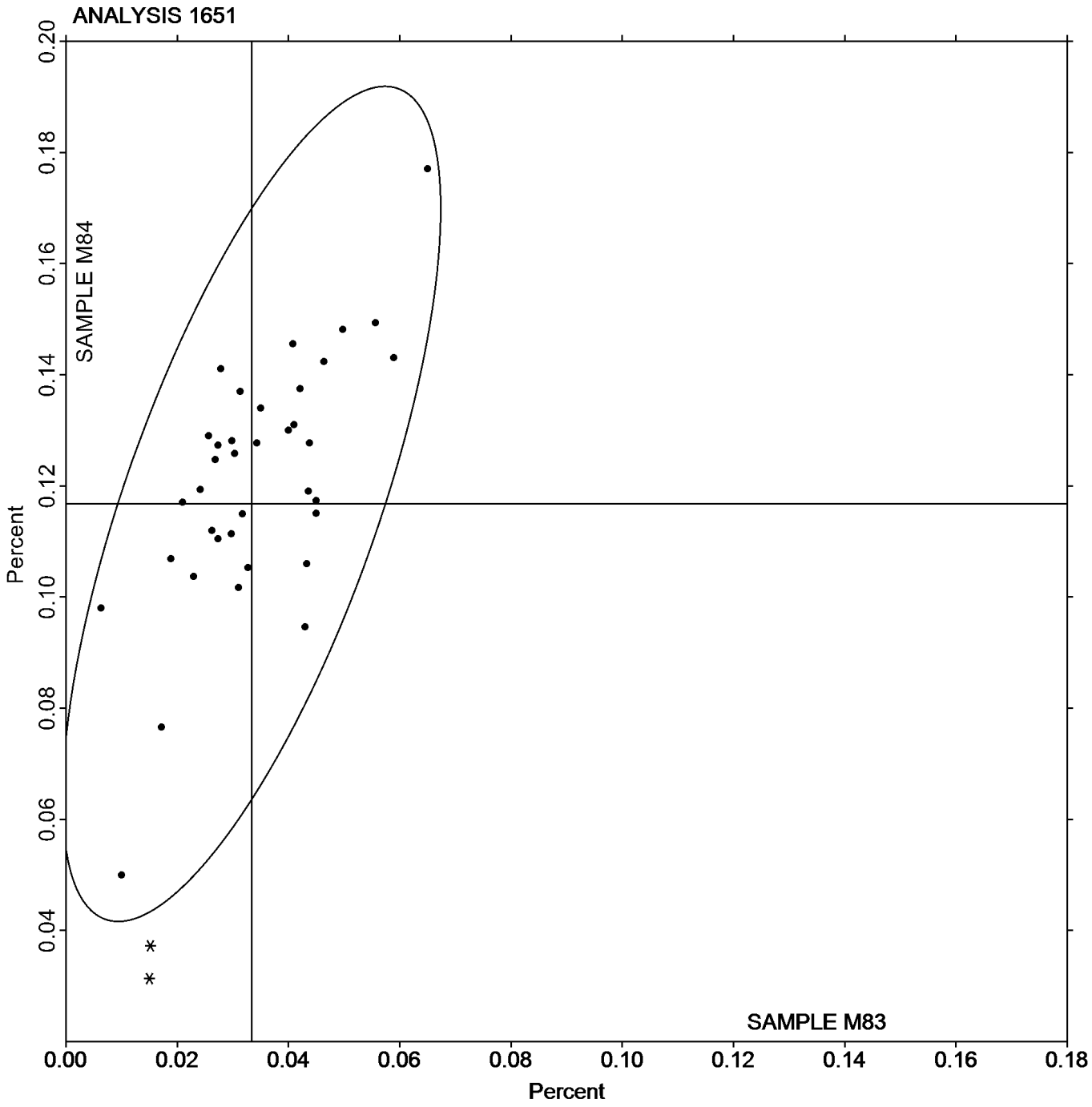
GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XX	Please Indicate Method Used for Current Element		

Comments on Assigned Data Flags for Test #1651

W39UVK (X) - Data for both samples are high.

SAMPLE M83
0.0334 Percent

SAMPLE M84
0.1168 Percent



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