Collaborative Testing Services, Inc.

Fasteners & Metals Interlaboratory Testing Program

Summary Report Cycle 114, 2nd Qtr 2016

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ABOUT THE FASTENERS & METALS PROGRAM

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

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

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

ABOUT CTS

Founded in 1971, CTS is a privately-owned company that specializes in interlaboratory tests for a wide variety of industries, including rubber, plastics, fasteners and metals, containerboard, paper, color, and wine as well as proficiency tests for forensic laboratories. All of the tests are designed to assist organizations in achieving and maintaining quality control objectives. Labs from the U.S., as well as more than 50 countries, currently participate in the CTS programs.
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Key for Fasteners & Metals Program Web Summary Report

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

Lab Mean - The average of the test results obtained by the participant.

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

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

Comparative Performance Value (CPV) - An indication of how well a laboratory's results agree with the other participants. The CPV is a ratio indicating the number of standard deviations from the GRAND MEAN. CPV = (LAB MEAN - GRAND MEAN)/ BETWEEN-LAB STANDARD DEVIATION. The closer a laboratory's COMPARATIVE PERFORMANCE VALUE is to zero, the more consistent its results are with the other participants' data (and vice versa).

Instr. Code - A code indicating the manufacturer of the instrument used to perform the test (see separate INSTRUMENT CODE LIST for each test section).

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

Data Flags

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

Graph - For each laboratory, the Lab Mean for the second sample (y-axis) is plotted against the Lab Mean for the first sample (x-axis) with each point representing a laboratory. The horizontal and vertical cross-hairs are the Grand Means for each sample. When 20 or more laboratories are included in the statistics, an ellipse is also drawn so that 95% of the time a randomly selected laboratory will be included inside the ellipse. Plotted data flags are explained above. Labs not receiving a data flag appear as points on the plot.

		Sample X35			Sample X36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
28AUJ6		169.24	-2.71	-1.49	166.02	-1.53	-0.99
2HRCCB		170.63	-1.33	-0.73	167.62	0.07	0.04
2NL23G		173.23	1.28	0.70	168.07	0.51	0.33
2QMEDM		174.93	2.98	1.64	170.37	2.81	1.81
2TBT4H		171.60	-0.35	-0.19	164.73	-2.82	-1.81
3ZCDQE		172.70	0.75	0.41	166.70	-0.85	-0.55
4Q46NJ		171.70	-0.25	-0.14	165.77	-1.79	-1.15
4W94Y9		173.77	1.81	1.00	168.60	1.05	0.67
66E9MJ		171.54	-0.41	-0.23	168.38	0.83	0.53
72AZVE		174.83	2.88	1.58	169.60	2.05	1.32
744LN6		173.99	2.04	1.12	167.22	-0.33	-0.21
7KML99	X	174.00	2.05	1.13	173.00	5.45	3.51
7ZY8TY		172.86	0.91	0.50	166.97	-0.58	-0.38
9F2L4D		170.02	-1.94	-1.07	165.97	-1.58	-1.02
9HAXLE		174.57	2.61	1.44	169.35	1.79	1.15
9QJ3Y6		170.76	-1.19	-0.66	166.15	-1.41	-0.90
AFG3Y7		170.40	-1.55	-0.86	168.20	0.65	0.42
AJDQDR		170.79	-1.17	-0.64	164.87	-2.68	-1.73
AMKYT4		169.35	-2.61	-1.43	167.30	-0.25	-0.16
B3PYRX		174.61	2.66	1.46	168.22	0.66	0.43
B9Y4QD		169.63	-2.32	-1.28	164.47	-3.09	-1.98
BDTZF4		169.00	-2.95	-1.63	166.23	-1.32	-0.85
BHFZKH		168.61	-3.35	-1.84	167.67	0.12	0.08
BNBKYZ		172.93	0.97	0.53	168.41	0.86	0.55
BRQ27J		170.37	-1.59	-0.87	165.73	-1.82	-1.17
C76M74		170.33	-1.63	-0.90	167.34	-0.21	-0.14
CKJ4LK		172.21	0.25	0.14	165.35	-2.20	-1.42
DAJUQ9		172.25	0.30	0.16	166.73	-0.82	-0.53
DBX2EB		171.17	-0.78	-0.43	167.89	0.34	0.22
DNJKN7		169.46	-2.49	-1.37	168.17	0.62	0.40
DUMNCJ		172.70	0.75	0.41	168.47	0.91	0.59
DWA7U4		169.37	-2.59	-1.42	166.10	-1.45	-0.93
EJKNCK		169.93	-2.02	-1.11	168.57	1.01	0.65
F46UDF		173.56	1.61	0.89	167.81	0.26	0.17
FKT3JQ		170.70	-1.25	-0.69	166.50	-1.05	-0.68
GBMQPT		172.67	0.71	0.39	168.70	1.15	0.74
GR6PT7		173.33	1.37	0.76	167.98	0.43	0.28
JFAXL8		173.24	1.29	0.71	166.32	-1.23	-0.79
K6JZNY		171.72	-0.23	-0.13	167.31	-0.24	-0.15
KZAM7Z		170.10	-1.85	-1.02	165.73	-1.82	-1.17
L2KZAM		170.33	-1.62	-0.89	167.00	-0.55	-0.35
L3M2XD		169.97	-1.99	-1.09	166.23	-1.32	-0.85
MEMQPZ		170.57	-1.39	-0.76	166.37	-1.19	-0.76
N2BR9D		174.47	2.51	1.38	166.53	-1.02	-0.66
N6RBUT		171.33	-0.62	-0.34	165.17	-2.39	-1.53
N8WXTQ		170.90	-1.05	-0.58	168.92	1.37	0.88
QH9TZ2		173.73	1.78	0.98	168.61	1.06	0.68

Fasteners and Metals Interlaboratory Testing Program

Analysis 115

Fastener Wedge Tensile (10 deg) - ksi
ASTM F606

Cycle 114
2nd Qtr
2016

		Sample X35			Sample X36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
QLAYDL		173.43	1.48	0.81	169.07	1.51	0.97
QU2CGR	*	176.71	4.76	2.62	169.37	1.82	1.17
R6GJTM		173.53	1.58	0.87	168.23	0.68	0.44
RAGL4H	*	169.76	-2.19	-1.20	170.36	2.81	1.81
RAQY3B		175.45	3.49	1.92	168.49	0.94	0.60
RCKGMK		171.94	-0.02	-0.01	167.28	-0.27	-0.18
RGWD7Z		173.61	1.66	0.91	169.53	1.98	1.27
T3PZBL		173.47	1.51	0.83	170.17	2.61	1.68
TABQXG		173.27	1.32	0.72	169.14	1.59	1.02
TVPKEL		172.21	0.26	0.14	170.52	2.97	1.91
TXFK2X		170.23	-1.72	-0.95	166.17	-1.39	-0.89
U3KZNQ		171.78	-0.17	-0.09	169.33	1.78	1.14
UTQQ6V	X	178.01	6.06	3.33	173.41	5.86	3.77
VNJT29		173.51	1.55	0.85	166.68	-0.87	-0.56
VTCJKY		170.40	-1.55	-0.86	165.97	-1.59	-1.02
W3E6HP		172.78	0.83	0.45	169.21	1.66	1.07
XDML9U	X	142.83	-29.13	-16.03	141.10	-26.46	-17.02
XE89YN	*	169.20	-2.75	-1.52	163.60	-3.95	-2.54
XL8MLB		171.43	-0.53	-0.29	166.16	-1.39	-0.90
XXY4M7		170.08	-1.87	-1.03	168.83	1.27	0.82
Y37AFG		174.03	2.08	1.14	168.80	1.25	0.80
Y4M79G		171.93	-0.02	-0.01	168.40	0.85	0.55
YZEZKU		172.44	0.49	0.27	167.58	0.03	0.02
Z2PFDL	X	177.93	5.98	3.29	172.47	4.91	3.16
ZKLTWL		173.00	1.05	0.58	168.53	0.98	0.63
ZTJBPC		173.49	1.53	0.84	169.83	2.28	1.47
ZUP28Q		173.00	1.05	0.58	167.00	-0.55	-0.35

Summary Statistics

	Sample X35		Sample X36	
Grand Means	171.95	ksi	167.55	ksi
Stnd Dev Btwn Labs	1.82	ksi	1.55	ksi

Samples X35, X36 : Fastener sizes: 3/8-16 x 2, 3/8-16 x 2 3/4

Statistics based on 70 of 74 reporting participants

Comments on Assigned Data Flags for Test #115

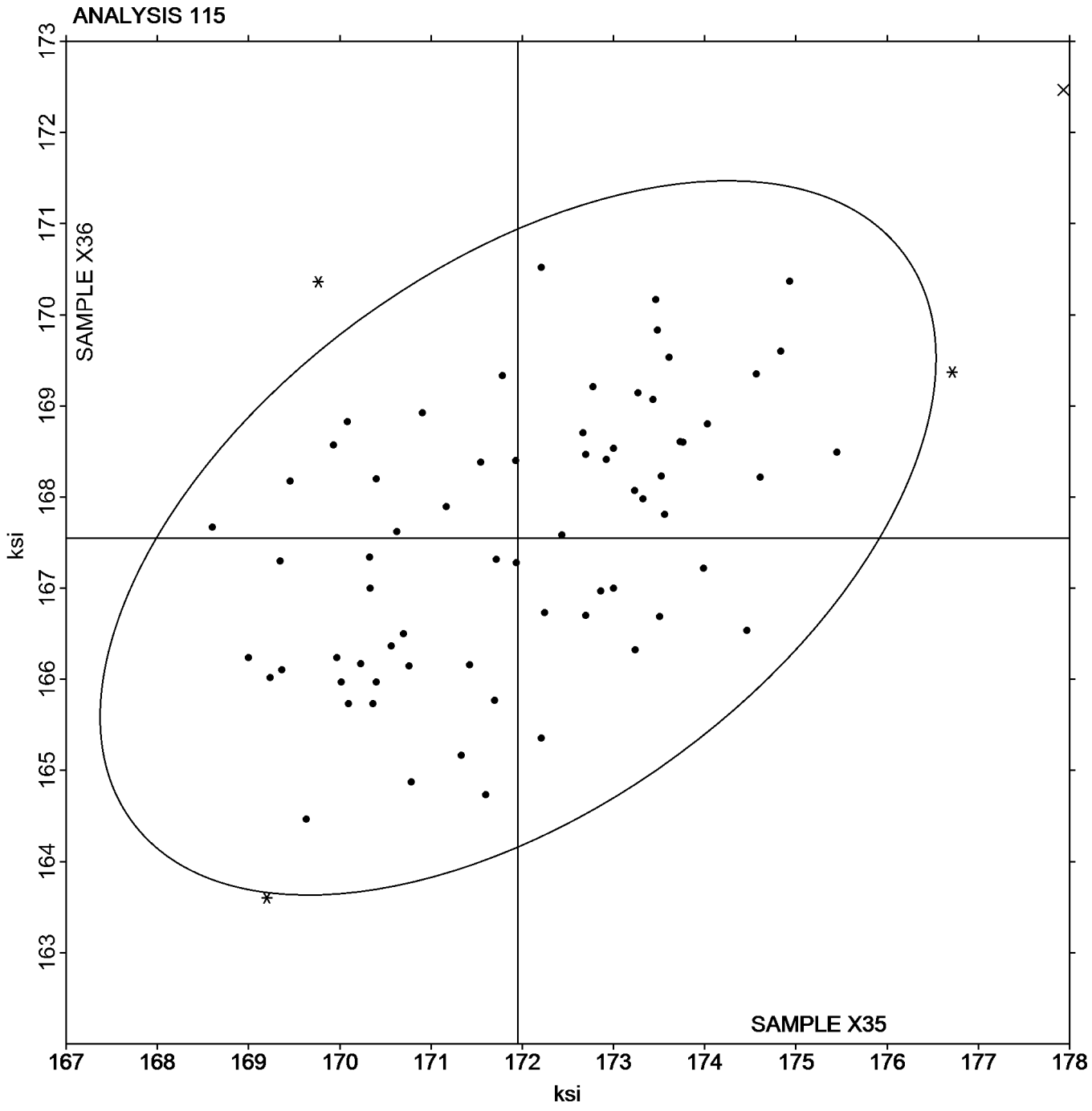
7KML99 (X) - Data for sample X36 are high.

UTQQ6V (X) - Data for both samples are high.

XDML9U (X) - Data for both samples are low.

Z2PFDL (X) - Data for both samples are high.

SAMPLE X35	SAMPLE X36
171.95 ksi	167.55 ksi



		Sample Q35			Sample Q36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
28AUJ6		171.32	-1.10	-0.62	166.02	-2.38	-1.30
2QMEDM		172.70	0.28	0.16	169.27	0.87	0.47
3P6WML		172.00	-0.42	-0.24	169.00	0.60	0.33
3ZCDQE		171.90	-0.52	-0.30	169.47	1.07	0.58
4W94Y9		173.33	0.91	0.52	169.00	0.60	0.33
72AZVE		175.10	2.68	1.52	170.10	1.70	0.93
744LN6		176.51	4.09	2.33	171.38	2.98	1.62
7QPX67		169.30	-3.12	-1.78	165.46	-2.94	-1.60
7ZEJB4		173.55	1.13	0.64	168.82	0.42	0.23
7ZY8TY		172.52	0.09	0.05	167.83	-0.57	-0.31
82KCHN		171.00	-1.42	-0.81	165.90	-2.50	-1.36
86PVQH		170.73	-1.69	-0.96	165.63	-2.76	-1.51
8BR6WA	X	179.03	6.61	3.76	175.91	7.51	4.09
8RTYDH		174.67	2.25	1.28	168.73	0.34	0.18
9F2L4D		171.96	-0.46	-0.26	166.53	-1.87	-1.02
9HAXLE	*	176.22	3.80	2.16	168.53	0.14	0.07
9QJ3Y6		170.56	-1.86	-1.06	167.18	-1.22	-0.66
AFG3Y7		169.97	-2.45	-1.40	166.23	-2.16	-1.18
AJDQDR		170.78	-1.64	-0.93	164.88	-3.52	-1.92
AMKYT4		170.24	-2.18	-1.24	165.94	-2.45	-1.34
AMYJ7L		171.27	-1.16	-0.66	167.97	-0.43	-0.23
ARPYQM		172.87	0.45	0.25	169.53	1.14	0.62
B3PYRX	X	178.21	5.79	3.29	170.75	2.36	1.28
B9Y4QD		169.70	-2.72	-1.55	166.70	-1.70	-0.92
BDTZF4		168.30	-4.12	-2.34	166.60	-1.80	-0.98
BLKM3U		174.01	1.59	0.90	169.46	1.06	0.58
BNBKYZ		173.14	0.72	0.41	167.76	-0.63	-0.35
C76M74		171.75	-0.67	-0.38	167.06	-1.33	-0.73
CHFA38		173.30	0.88	0.50	167.97	-0.43	-0.23
CKJ4LK		172.02	-0.41	-0.23	166.84	-1.55	-0.85
DAJUQ9		174.16	1.74	0.99	168.76	0.36	0.19
DBX2EB		172.23	-0.19	-0.11	169.56	1.16	0.63
DEDQFY		173.10	0.68	0.39	169.40	1.00	0.55
DPQZWX		172.33	-0.09	-0.05	167.00	-1.40	-0.76
EJKNCK		173.03	0.61	0.35	169.77	1.37	0.75
FK7RJH		171.57	-0.85	-0.49	169.37	0.97	0.53
G43HDQ		174.33	1.91	1.09	170.00	1.60	0.87
GBMQPT		173.03	0.61	0.35	169.50	1.10	0.60
JEDHBV		170.23	-2.19	-1.24	168.47	0.08	0.04
JGFRUC	X	196.50	24.08	13.70	189.88	21.49	11.70
K62UP9	X	180.33	7.91	4.50	179.77	11.37	6.19
KZAM7Z		168.43	-3.99	-2.27	165.43	-2.96	-1.61
L2KZAM		171.67	-0.75	-0.43	165.67	-2.73	-1.49
L3M2XD		171.00	-1.42	-0.81	165.43	-2.96	-1.61
LQGQKP		173.50	1.08	0.61	169.67	1.27	0.69
MEZDU8		173.04	0.62	0.35	170.23	1.83	1.00
MJCEYC		172.19	-0.23	-0.13	169.20	0.80	0.44

Fasteners and Metals Interlaboratory Testing Program

Analysis 116

Fastener Axial Tensile - ksi

ASTM F606

Cycle 114
2nd Qtr
2016

		Sample Q35			Sample Q36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
N2BR9D		171.70	-0.72	-0.41	168.00	-0.40	-0.22
N6RBUT		169.80	-2.62	-1.49	164.87	-3.53	-1.92
N8WXTQ		175.06	2.64	1.50	171.00	2.60	1.42
P26W4X	*	173.67	1.25	0.71	173.00	4.60	2.51
QH9TZ2		173.47	1.05	0.60	168.90	0.50	0.27
QLAYDL		173.13	0.71	0.40	169.10	0.70	0.38
QU2CGR		174.71	2.29	1.30	169.81	1.41	0.77
R2H9WM		174.30	1.88	1.07	169.80	1.40	0.76
RAGL4H		171.31	-1.11	-0.63	168.21	-0.19	-0.10
RCKGMK		173.46	1.04	0.59	168.93	0.54	0.29
RGWD7Z		173.47	1.05	0.60	168.60	0.20	0.11
T3PZBL	X	164.43	-7.99	-4.54	164.07	-4.33	-2.36
TABQXG		171.76	-0.66	-0.37	171.21	2.81	1.53
TVPKEL		171.39	-1.03	-0.59	169.36	0.96	0.52
TXFK2X		172.20	-0.22	-0.13	166.63	-1.76	-0.96
TY2HY3		174.22	1.80	1.03	172.29	3.90	2.12
U3KZNQ		174.53	2.11	1.20	169.18	0.79	0.43
VNJT29		172.80	0.37	0.21	169.26	0.87	0.47
VTCJKY		173.33	0.91	0.52	168.17	-0.23	-0.13
W3E6HP		172.60	0.18	0.10	168.88	0.48	0.26
XDML9U	X	145.59	-26.83	-15.26	138.77	-29.63	-16.14
XE89YN		170.17	-2.25	-1.28	165.57	-2.83	-1.54
XLJHVW		172.30	-0.12	-0.07	166.90	-1.50	-0.82
XXY4M7		170.37	-2.05	-1.17	168.05	-0.35	-0.19
Y4M79G	*	171.27	-1.15	-0.66	171.33	2.94	1.60
Y8F89A		171.23	-1.19	-0.68	168.33	-0.06	-0.03
YTHA9K		172.07	-0.35	-0.20	167.83	-0.56	-0.31
YUTXNQ	*	176.72	4.30	2.45	172.46	4.06	2.21
YZEZKU		171.49	-0.94	-0.53	168.15	-0.25	-0.13
ZKLTWL		172.57	0.15	0.08	169.87	1.47	0.80
ZUP28Q		174.67	2.25	1.28	167.67	-0.73	-0.40

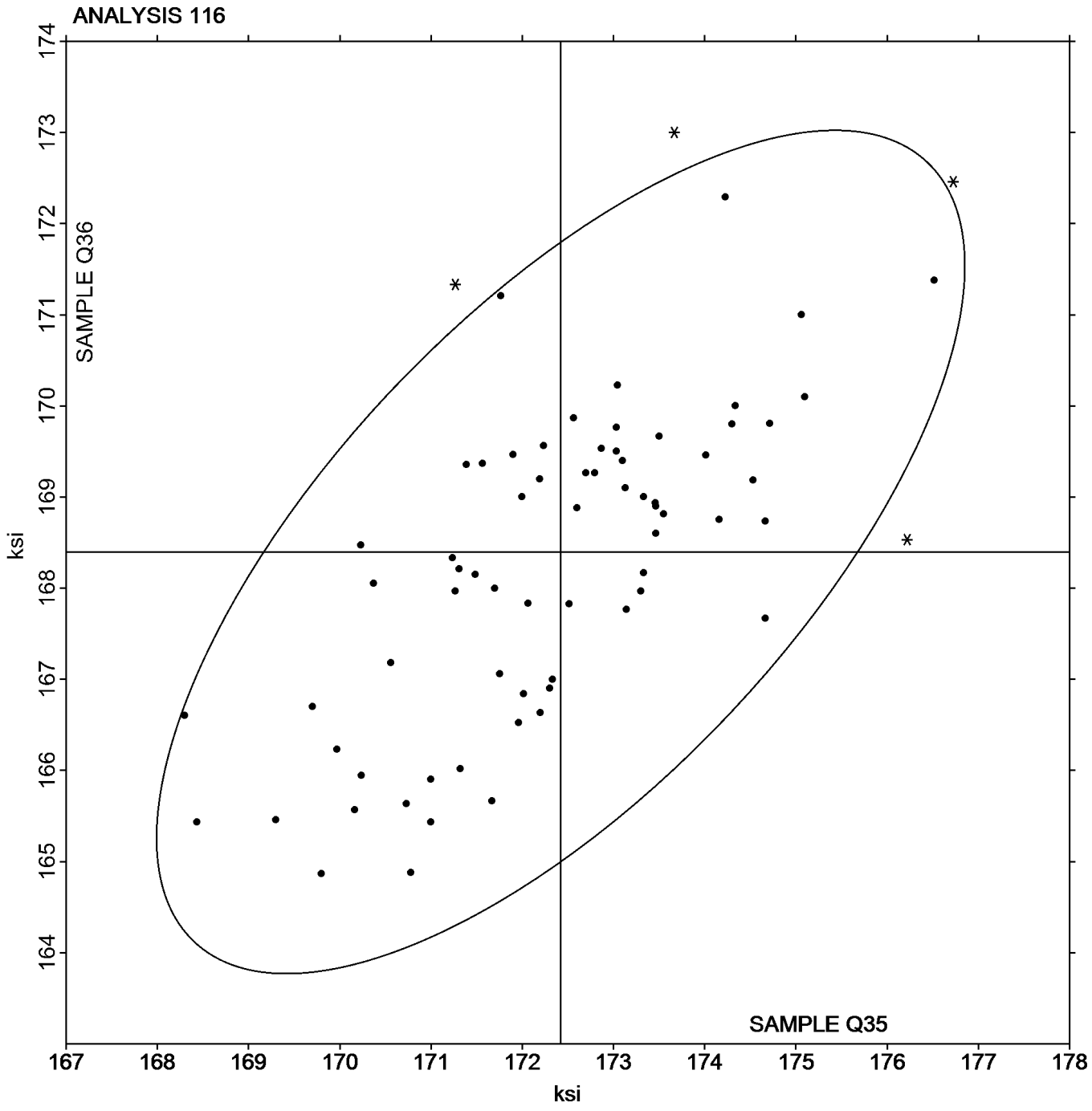
Summary Statistics

	Sample Q35		Sample Q36	
Grand Means	172.42	ksi	168.40	ksi
Stnd Dev Btwn Labs	1.76	ksi	1.84	ksi

Samples Q35, Q36 : Fastener sizes: 3/8-16 x 2, 3/8-16 x 2

Statistics based on 72 of 78 reporting participants

SAMPLE Q35	SAMPLE Q36
172.42 ksi	168.40 ksi



		Sample E35			Sample E36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2248HN		58.28	-0.19	-0.51	52.78	0.19	0.52
262RKM	*	57.60	-0.87	-2.35	51.60	-0.99	-2.70
263L4T		59.00	0.53	1.44	53.20	0.61	1.67
2F38EX		58.46	-0.01	-0.02	52.18	-0.41	-1.12
2FR482	X	57.37	-1.09	-2.96	50.87	-1.72	-4.70
2TUQ6W	*	58.00	-0.47	-1.27	52.90	0.31	0.85
2XYMNW		58.52	0.05	0.14	52.22	-0.37	-1.01
3ADYLR		58.08	-0.39	-1.05	52.34	-0.25	-0.68
3PR9HE		58.48	0.01	0.03	52.48	-0.11	-0.30
3QMRKF		58.60	0.13	0.36	52.68	0.09	0.25
3ZCDQE		58.22	-0.25	-0.67	52.60	0.01	0.03
49CLDP	X	58.82	0.35	0.96	52.00	-0.59	-1.61
4NRBZ7	*	57.46	-1.01	-2.73	51.78	-0.81	-2.21
4Q46NJ		58.88	0.41	1.12	53.12	0.53	1.45
4W94Y9		58.22	-0.25	-0.67	52.26	-0.33	-0.90
4WGCNV		58.71	0.24	0.66	53.29	0.70	1.92
6FC6AT		58.86	0.39	1.06	52.82	0.23	0.63
6G9FBM		58.74	0.27	0.74	52.74	0.15	0.41
6HFZTV		58.52	0.05	0.14	52.40	-0.19	-0.52
6KMBRK		58.92	0.45	1.23	52.76	0.17	0.47
6LWBWR		58.80	0.33	0.90	53.30	0.71	1.95
6M7A3U	*	57.72	-0.75	-2.03	51.62	-0.97	-2.65
78VY2T		58.68	0.21	0.58	52.66	0.07	0.20
799KMN	X	87.70	29.23	79.24	82.10	29.51	80.70
7DLC3G		58.79	0.33	0.89	52.87	0.28	0.76
7FD9RB		58.46	-0.01	-0.02	52.70	0.11	0.31
7KML99	X	59.02	0.55	1.50	53.86	1.27	3.48
7LH83Z		58.34	-0.13	-0.35	52.96	0.37	1.02
7YHYGP		58.74	0.27	0.74	53.08	0.49	1.34
7ZY8TY		58.84	0.37	1.01	52.90	0.31	0.85
8EQJKZ		58.18	-0.29	-0.78	52.34	-0.25	-0.68
8P92D7		58.70	0.23	0.63	52.76	0.17	0.47
8VVZHL		58.10	-0.37	-1.00	52.00	-0.59	-1.61
9AU77P		58.60	0.13	0.36	52.90	0.31	0.85
9HAXLE		59.22	0.75	2.04	53.16	0.57	1.56
9NWKGK		58.30	-0.17	-0.45	52.16	-0.43	-1.17
9WP244		58.58	0.11	0.30	52.80	0.21	0.58
AWBKY3		58.12	-0.35	-0.94	51.82	-0.77	-2.10
B9Y4QD		57.98	-0.49	-1.32	52.38	-0.21	-0.57
BEZHDY		58.52	0.05	0.14	52.52	-0.07	-0.19
BG6XYJ		58.50	0.04	0.10	52.50	-0.09	-0.24
CJAVVX		58.40	-0.07	-0.18	52.48	-0.11	-0.30
D6M9NJ		58.68	0.21	0.58	52.86	0.27	0.74
DDH9DX		58.60	0.13	0.36	52.96	0.37	1.02
DFJEGH		58.38	-0.09	-0.24	52.64	0.05	0.14
E897VA		58.12	-0.35	-0.94	52.32	-0.27	-0.73
ELLLWK		58.60	0.13	0.36	52.80	0.21	0.58

		Sample E35			Sample E36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
EZ84FG		58.22	-0.25	-0.67	52.64	0.05	0.14
F9F3MW		58.44	-0.03	-0.07	52.40	-0.19	-0.52
FKT3JQ		58.26	-0.21	-0.56	52.52	-0.07	-0.19
FWGEHG		57.80	-0.67	-1.81	52.40	-0.19	-0.52
G6UKZ7		58.70	0.23	0.63	52.84	0.25	0.69
GAR9NR		58.94	0.47	1.28	52.94	0.35	0.96
GKU7W2		58.76	0.29	0.79	52.82	0.23	0.63
GWWX3E		57.94	-0.53	-1.43	52.32	-0.27	-0.73
GZV9XE		58.88	0.41	1.12	52.76	0.17	0.47
H974HY		58.48	0.01	0.03	52.72	0.13	0.36
HHF64Y		58.30	-0.17	-0.45	52.30	-0.29	-0.79
HQU6KW		58.40	-0.07	-0.18	52.18	-0.41	-1.12
HTD99T		58.20	-0.27	-0.73	52.24	-0.35	-0.95
HU724C	X	58.96	0.49	1.34	51.88	-0.71	-1.94
JQY8E7		58.88	0.41	1.12	52.94	0.35	0.96
K4MKEM		58.80	0.33	0.90	52.78	0.19	0.52
K6JZNY		58.44	-0.03	-0.07	52.34	-0.25	-0.68
K9MNH3		58.88	0.41	1.12	53.18	0.59	1.62
KVRPCH		57.64	-0.83	-2.24	52.00	-0.59	-1.61
KZAM7Z		58.24	-0.23	-0.62	52.64	0.05	0.14
L7PY97		58.74	0.27	0.74	52.70	0.11	0.31
LBKNV6	X	57.30	-1.17	-3.16	51.00	-1.59	-4.34
LBPWAJ		58.06	-0.41	-1.10	52.10	-0.49	-1.34
LDDJNT	X	58.14	-0.33	-0.89	50.46	-2.13	-5.82
M99924	X	60.80	2.33	6.32	57.80	5.21	14.25
MEHHAK	*	59.14	0.67	1.82	53.50	0.91	2.49
MEMQPZ		58.30	-0.17	-0.45	52.48	-0.11	-0.30
MEYJB2	X	58.00	-0.47	-1.27	53.00	0.41	1.13
MVR63N		58.42	-0.05	-0.13	52.28	-0.31	-0.84
MWK9EV		58.20	-0.27	-0.73	52.56	-0.03	-0.08
N68RX9		58.87	0.40	1.09	53.24	0.66	1.79
N6M2YL		58.82	0.35	0.96	52.52	-0.07	-0.19
N6RBUT		58.12	-0.35	-0.94	52.20	-0.39	-1.06
NBD9JF		57.86	-0.61	-1.65	52.00	-0.59	-1.61
NG9WM2		58.72	0.25	0.68	52.60	0.01	0.03
NLUZ2X		58.44	-0.03	-0.07	52.58	-0.01	-0.02
NPFHMP		58.42	-0.05	-0.13	52.38	-0.21	-0.57
NPUBWX		58.55	0.08	0.22	53.12	0.53	1.45
NZG24J		58.10	-0.37	-1.00	52.56	-0.03	-0.08
QGEZ6H		58.54	0.07	0.20	52.60	0.01	0.03
QQZ9MK		58.12	-0.35	-0.94	52.16	-0.43	-1.17
QUK3HZ		58.64	0.17	0.47	53.06	0.47	1.29
QW8UFN		58.74	0.27	0.74	52.85	0.26	0.70
R2H9WM		58.58	0.11	0.30	52.38	-0.21	-0.57
RAQY3B		58.58	0.11	0.30	52.54	-0.05	-0.13
RDFYNL		58.14	-0.33	-0.89	52.22	-0.37	-1.01
RJZ9NH		58.54	0.07	0.20	52.70	0.11	0.31

		Sample E35			Sample E36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
RN73HE		58.36	-0.11	-0.29	52.48	-0.11	-0.30
RT3H72	*	57.60	-0.87	-2.35	52.40	-0.19	-0.52
T3PZBL		58.64	0.17	0.47	52.42	-0.17	-0.46
T8ZXU2		59.10	0.63	1.71	52.72	0.13	0.36
TWHG2V		59.00	0.53	1.44	53.00	0.41	1.13
U32B8Q		58.30	-0.17	-0.45	52.50	-0.09	-0.24
U4WLC8		58.56	0.09	0.25	52.64	0.05	0.14
UF3NL3		58.88	0.41	1.12	53.14	0.55	1.51
UQNTU3		58.62	0.15	0.41	52.52	-0.07	-0.19
VF8EGR		58.16	-0.31	-0.83	52.26	-0.33	-0.90
VJMYCK		58.34	-0.13	-0.35	52.86	0.27	0.74
VL9QDP		58.12	-0.35	-0.94	52.40	-0.19	-0.52
VNJT29		58.94	0.47	1.28	52.78	0.19	0.52
VTCJKY		58.66	0.19	0.52	52.52	-0.07	-0.19
VUH9J2		57.92	-0.55	-1.48	52.14	-0.45	-1.23
W7DTNY		58.92	0.45	1.23	53.10	0.51	1.40
WQYKPG		58.08	-0.39	-1.05	52.12	-0.47	-1.28
WUNKCR	*	57.76	-0.71	-1.92	52.54	-0.05	-0.13
WVBG9W		58.02	-0.45	-1.21	52.26	-0.33	-0.90
XBF9KZ		58.60	0.13	0.36	52.58	-0.01	-0.02
XK7TPY		58.28	-0.19	-0.51	52.50	-0.09	-0.24
XR9XLN		58.42	-0.05	-0.13	52.82	0.23	0.63
XY8JUC		58.08	-0.39	-1.05	52.04	-0.55	-1.50
XYVJZ3	X	57.12	-1.35	-3.65	52.44	-0.15	-0.41
Y8F89A		58.64	0.17	0.47	52.66	0.07	0.20
YCQA7Y		59.08	0.61	1.66	52.96	0.37	1.02
YKALCD		58.98	0.51	1.39	52.74	0.15	0.41
YQEGEL		58.78	0.31	0.85	52.92	0.33	0.91
YTHA9K		58.58	0.11	0.30	52.28	-0.31	-0.84
ZBGQP3		59.00	0.53	1.44	53.20	0.61	1.67
ZGG79V		58.96	0.49	1.34	52.62	0.03	0.09
ZGLKRB		58.50	0.03	0.09	52.20	-0.39	-1.06

Summary Statistics

	Sample E35		Sample E36	
Grand Means	58.47	HRC	52.59	HRC
Stnd Dev Btwn Labs	0.37	HRC	0.37	HRC

Samples E35, E36 : Steel

Statistics based on 116 of 126 reporting participants

Comments on Assigned Data Flags for Test #118

2FR482 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.

49CLDP (X) - Inconsistent in testing between samples.

799KMN (X) - Data for both samples are high. Possible Systematic Error.

7KML99 (X) - Data for sample E36 are high.

HU724C (X) - Inconsistent in testing between samples.

LBKNV6 (X) - Data for both samples are low. Possible Systematic Error.

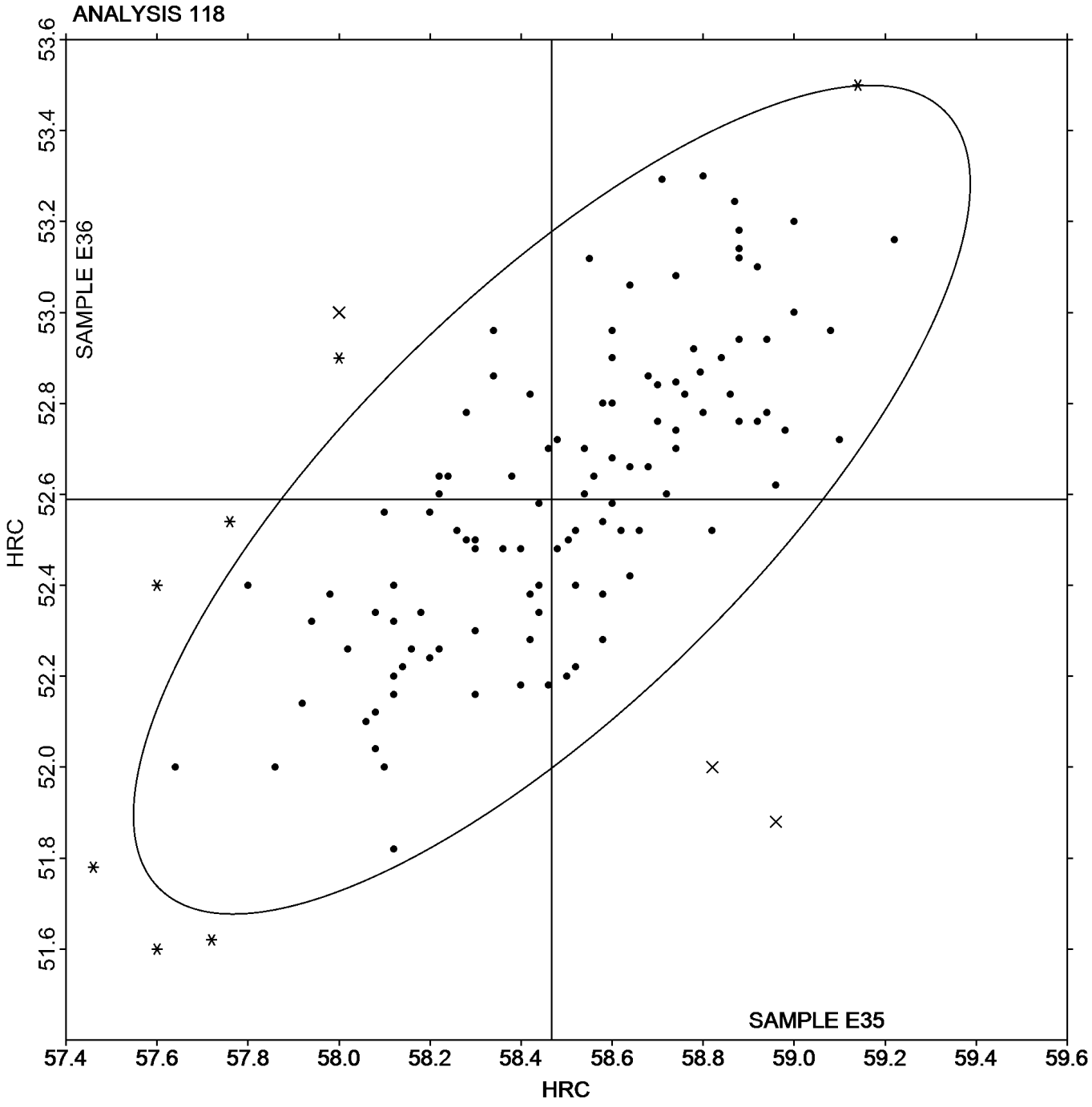
LDDJNT (X) - Data for sample E36 are low. Inconsistent within the determinations of sample E36.

M99924 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

MEYJB2 (X) - Inconsistent in testing between samples.

XYVJZ3 (X) - Data for sample E35 are low. Inconsistent within the determinations of sample E35.

SAMPLE E35	SAMPLE E36
58.47 HRC	52.59 HRC



		Sample E35			Sample E36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2QMEDM		59.58	0.96	2.18	53.30	0.76	1.82
2TBT4H		59.12	0.50	1.13	52.92	0.38	0.91
2TEB3G		58.16	-0.46	-1.06	52.26	-0.28	-0.68
2YXQGC		58.84	0.22	0.49	52.48	-0.06	-0.15
3MJ3VR		58.14	-0.48	-1.10	52.00	-0.54	-1.30
479GAG	X	59.02	0.40	0.90	53.70	1.16	2.78
484ZBH		57.92	-0.70	-1.60	51.60	-0.94	-2.26
4KT4E9		58.30	-0.32	-0.73	52.00	-0.54	-1.31
6DNMJT		59.04	0.42	0.95	52.84	0.30	0.72
6G8UK2		58.90	0.28	0.63	52.66	0.12	0.28
744LN6		58.50	-0.12	-0.28	52.52	-0.02	-0.05
7K3W2M	*	57.68	-0.94	-2.15	52.14	-0.40	-0.97
7PFGG9		58.00	-0.62	-1.42	51.88	-0.66	-1.59
87GRFB	X	57.50	-1.12	-2.56	52.20	-0.34	-0.82
8GKZ6A		59.02	0.40	0.90	52.72	0.18	0.43
8WT2TJ		58.30	-0.32	-0.74	52.64	0.10	0.24
9DPZ4Q		58.16	-0.46	-1.06	52.26	-0.28	-0.68
9E7ZBL		59.00	0.38	0.86	52.98	0.44	1.05
A39JYQ		58.86	0.24	0.55	52.42	-0.13	-0.30
A3B3YM		57.80	-0.82	-1.88	51.60	-0.94	-2.26
AMYJ7L		58.34	-0.28	-0.65	52.50	-0.04	-0.10
B2CFV8		58.46	-0.16	-0.37	51.94	-0.60	-1.45
B3PYRX		58.64	0.02	0.04	52.50	-0.04	-0.10
BRQ27J		58.46	-0.16	-0.37	52.82	0.28	0.67
BZGXU7		59.00	0.38	0.86	52.80	0.26	0.62
BZHGT3		58.30	-0.32	-0.74	52.18	-0.36	-0.87
C99GMK		59.12	0.50	1.13	53.32	0.78	1.87
CTDZXM	X	123.40	64.78	147.61	120.20	67.66	162.58
CUWWC9		57.96	-0.66	-1.51	52.02	-0.52	-1.25
DMM6DU		58.44	-0.18	-0.42	52.70	0.16	0.38
E64VMD		58.32	-0.30	-0.69	52.38	-0.16	-0.39
EEQP2V		58.38	-0.24	-0.56	51.94	-0.60	-1.45
EJKNCK		58.30	-0.32	-0.74	52.14	-0.40	-0.97
EVAM3M		58.64	0.02	0.04	52.58	0.04	0.09
F46UDF		59.34	0.72	1.63	53.08	0.54	1.29
FCA2TF		58.78	0.16	0.36	52.66	0.12	0.28
FK7RJH		58.78	0.16	0.36	52.48	-0.06	-0.15
FMXN9C		59.00	0.38	0.86	52.52	-0.02	-0.05
G4JTVV		59.26	0.64	1.45	53.32	0.78	1.87
GBMQPT		58.96	0.34	0.77	52.62	0.08	0.19
GN7DW7	X	58.28	-0.34	-0.78	51.30	-1.24	-2.98
GYQKWV		58.34	-0.28	-0.65	52.06	-0.48	-1.16
J9P7QY		58.60	-0.02	-0.05	52.38	-0.16	-0.39
JFAXL8		59.02	0.40	0.90	52.46	-0.08	-0.20
JJKCLH		59.18	0.56	1.27	53.08	0.54	1.29
JKGTWU		58.02	-0.60	-1.38	52.10	-0.44	-1.06
JU8D3T		58.24	-0.38	-0.87	52.00	-0.54	-1.30

		Sample E35			Sample E36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
K9FP67		58.30	-0.32	-0.74	52.32	-0.22	-0.53
KVFQH9		58.88	0.26	0.58	53.00	0.46	1.10
LGPF99		58.86	0.24	0.54	52.28	-0.26	-0.63
M37764	X	57.20	-1.42	-3.24	50.80	-1.74	-4.19
M9DQY3		57.90	-0.72	-1.65	52.24	-0.30	-0.73
MBJ24H		59.00	0.38	0.86	53.00	0.46	1.10
MEZDU8	X	59.88	1.26	2.86	51.96	-0.58	-1.40
MJCEYC		58.90	0.28	0.63	52.70	0.16	0.38
MNAVER		59.66	1.04	2.36	53.30	0.76	1.82
N2BR9D		58.24	-0.38	-0.87	52.40	-0.14	-0.34
NHUUJ8		59.12	0.50	1.13	53.12	0.58	1.39
NKNB6G		58.89	0.27	0.61	53.08	0.54	1.29
NN39AH		59.20	0.58	1.31	53.16	0.62	1.48
P9JRX7		59.48	0.86	1.95	53.06	0.52	1.24
Q7HW2P		58.56	-0.06	-0.15	52.16	-0.38	-0.92
QJ4MJR		58.42	-0.20	-0.46	52.66	0.12	0.28
QQ6LBG		58.46	-0.16	-0.37	52.68	0.14	0.33
QY2CZX		58.64	0.02	0.04	52.60	0.06	0.14
RT4JWT		58.66	0.04	0.08	52.96	0.42	1.00
TEFPVY		58.12	-0.50	-1.15	52.18	-0.36	-0.87
TL2K8P		58.72	0.10	0.22	52.68	0.14	0.33
TWL4GN		57.74	-0.88	-2.01	51.80	-0.74	-1.78
TXFK2X		58.76	0.14	0.31	52.78	0.24	0.57
U6A8X2	X	59.72	1.10	2.50	54.14	1.60	3.84
UN26L9		58.54	-0.08	-0.19	52.30	-0.24	-0.58
V3W7CE		58.71	0.09	0.20	52.70	0.16	0.38
WF8PXG		58.54	-0.08	-0.19	52.22	-0.32	-0.77
XL8MLB	X	57.38	-1.24	-2.83	52.16	-0.38	-0.92
XXFF7B		58.64	0.02	0.04	52.82	0.28	0.67
Y3LHJQ		58.56	-0.06	-0.15	52.80	0.26	0.62
Y9CQAB		58.74	0.12	0.26	52.50	-0.04	-0.10
YH34DH		58.38	-0.24	-0.56	52.46	-0.08	-0.20
Z4GB3F		58.46	-0.16	-0.37	52.46	-0.08	-0.20
ZPH8V4		59.28	0.66	1.50	53.14	0.60	1.44
ZTJBPC		58.60	-0.02	-0.05	52.76	0.22	0.52

Summary Statistics

	Sample E35		Sample E36	
Grand Means	58.62	HRC	52.54	HRC
Stnd Dev Btwn Labs	0.44	HRC	0.42	HRC

Samples E35, E36 : Steel

Statistics based on 74 of 82 reporting participants

Comments on Assigned Data Flags for Test #120

479GAG (X) - Data for sample E36 are high.

87GRFB (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample E35.

CTDZXM (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample E35.

GN7DW7 (X) - Data for sample E36 are low.

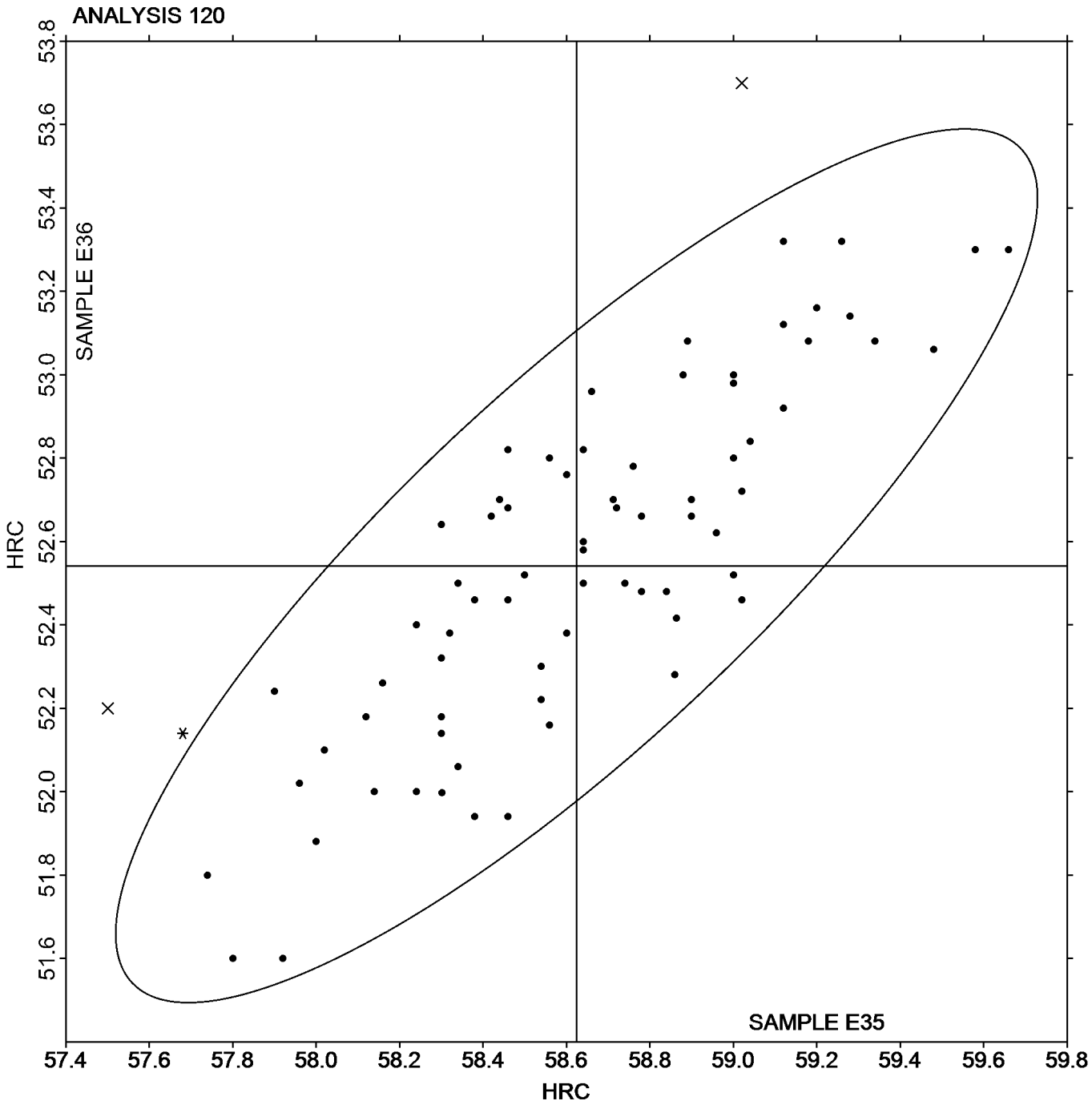
M37764 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample E35.

MEZDU8 (X) - Data for sample E35 are high. Inconsistent within the determinations of sample E35.

U6A8X2 (X) - Data for sample E36 are high. Inconsistent within the determinations of sample E35.

XL8MLB (X) - Data for sample E35 are low. Inconsistent within the determinations of sample E35.

SAMPLE E35	SAMPLE E36
58.62 HRC	52.54 HRC



		Sample G35			Sample G36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2A4C4E		36.13	0.01	0.02	36.42	-0.20	-0.42
2C4WJX		36.03	-0.09	-0.18	36.49	-0.13	-0.28
2HRCCB		35.05	-1.07	-2.10	35.55	-1.07	-2.22
2NL23G		36.56	0.45	0.88	36.82	0.20	0.41
2QMEDM		36.56	0.45	0.88	36.47	-0.15	-0.32
3PR9HE	X	36.52	0.40	0.79	38.49	1.87	3.87
3ZCDQE		35.51	-0.61	-1.20	36.15	-0.47	-0.98
4W94Y9		36.29	0.17	0.34	36.93	0.30	0.63
72AZVE		36.53	0.41	0.81	36.83	0.21	0.44
7QPX67		35.65	-0.47	-0.92	35.99	-0.63	-1.30
7ZEJB4		36.38	0.26	0.51	36.48	-0.14	-0.29
7ZY8TY		35.99	-0.12	-0.24	36.03	-0.60	-1.23
8BR6WA		36.16	0.05	0.09	37.13	0.50	1.04
8M3FML	X	34.33	-1.79	-3.52	34.61	-2.01	-4.17
96Z3P4		36.24	0.12	0.24	36.53	-0.10	-0.20
9QJ3Y6		36.87	0.75	1.48	37.30	0.68	1.41
9WREYC		35.54	-0.57	-1.13	36.46	-0.16	-0.33
A7U49Z		35.69	-0.43	-0.84	36.44	-0.18	-0.38
AFG3Y7		35.77	-0.35	-0.68	36.34	-0.28	-0.57
AMKYT4		36.19	0.07	0.14	36.58	-0.05	-0.10
AMZHD2		36.28	0.16	0.31	36.74	0.12	0.24
B3PYRX	X	36.62	0.50	0.99	35.67	-0.95	-1.97
B9Y4QD		35.81	-0.30	-0.60	36.50	-0.12	-0.25
BDTZF4		35.45	-0.67	-1.31	36.60	-0.02	-0.04
BLKM3U	X	33.74	-2.38	-4.68	35.41	-1.21	-2.52
BNBKYZ		36.39	0.27	0.54	37.32	0.70	1.45
BYAHKE		36.03	-0.09	-0.17	36.65	0.03	0.06
C76M74		36.41	0.30	0.58	37.30	0.68	1.41
CWE2Z6		35.88	-0.24	-0.47	36.63	0.00	0.01
D94KRF		36.17	0.05	0.10	36.54	-0.08	-0.16
DAJUQ9	X	35.20	-0.92	-1.80	36.92	0.30	0.62
DBX2EB		36.11	-0.01	-0.02	36.37	-0.25	-0.52
DEDQFY		35.74	-0.37	-0.73	36.35	-0.27	-0.56
DNJKN7		37.02	0.90	1.77	37.03	0.41	0.85
DTFZJ9		36.08	-0.04	-0.07	36.80	0.18	0.37
DWA7U4	X	35.36	-0.76	-1.49	34.41	-2.21	-4.59
E8PD7Y		36.23	0.11	0.23	36.82	0.20	0.41
GBMQPT		35.97	-0.15	-0.29	36.41	-0.21	-0.43
GNGBTA		36.48	0.36	0.70	36.41	-0.21	-0.43
GR6PT7		35.52	-0.60	-1.18	35.93	-0.70	-1.44
GR7CJR		35.85	-0.27	-0.53	36.40	-0.22	-0.46
HX4R2B	*	35.36	-0.76	-1.49	36.66	0.04	0.09
J7JLZD		37.00	0.88	1.74	37.06	0.44	0.92
JEDHBV	*	36.51	0.39	0.77	37.64	1.02	2.11
JGFRUC		35.28	-0.84	-1.65	35.91	-0.71	-1.48
KZAM7Z		36.59	0.47	0.93	37.26	0.64	1.32
L2KZAM		36.80	0.68	1.34	37.64	1.02	2.12

Fasteners and Metals Interlaboratory Testing Program

Analysis 125

Rockwell Hardness of Externally Threaded Fasteners - HRC
ASTM F606/F606M AND ASTM E18

Cycle 114
2nd Qtr
2016

		Sample G35			Sample G36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
L3M2XD		36.38	0.26	0.51	36.41	-0.21	-0.43
N6MY9H		37.02	0.90	1.77	37.11	0.48	1.00
N6RBUT		36.20	0.08	0.16	36.66	0.04	0.07
N8WXTQ		35.62	-0.50	-0.98	36.05	-0.57	-1.18
QH9TZ2		36.44	0.32	0.63	36.26	-0.36	-0.76
QLAYDL		36.84	0.72	1.42	36.92	0.30	0.62
QU2CGR		35.89	-0.22	-0.44	36.77	0.15	0.31
R9ZNBH		36.65	0.53	1.05	36.91	0.29	0.59
RAGL4H		36.32	0.20	0.40	37.33	0.71	1.47
T3PZBL		36.39	0.28	0.54	37.28	0.65	1.35
TABQXG		36.69	0.57	1.12	36.94	0.32	0.66
TVPKEL		37.38	1.27	2.49	37.63	1.00	2.08
U3KZNQ		36.54	0.42	0.83	36.99	0.37	0.77
UD74VQ	*	34.70	-1.42	-2.78	35.21	-1.41	-2.93
UTQQ6V	X	34.79	-1.33	-2.62	34.13	-2.49	-5.17
UV3GH7		36.32	0.20	0.40	36.69	0.07	0.15
V2QJ3G		36.36	0.25	0.48	36.69	0.07	0.14
VTCJKY		35.93	-0.19	-0.36	36.41	-0.21	-0.44
W3E6HP		36.31	0.19	0.37	36.64	0.02	0.03
W7BX6T		35.70	-0.42	-0.82	36.10	-0.52	-1.08
WUNKCR	*	34.81	-1.30	-2.56	35.81	-0.81	-1.67
XE89YN		36.44	0.32	0.63	36.83	0.21	0.44
XF2URF		35.66	-0.45	-0.89	36.03	-0.60	-1.23
XXY4M7		36.13	0.01	0.03	36.44	-0.18	-0.38
XYVJZ3	X	35.81	-0.31	-0.61	34.89	-1.73	-3.58
Y37AFG		35.67	-0.45	-0.88	36.20	-0.42	-0.87
Y4M79G		36.05	-0.07	-0.13	36.93	0.31	0.64
Y6GR28	X	35.73	-0.39	-0.76	35.23	-1.39	-2.88
Y8F89A		35.85	-0.27	-0.52	36.78	0.15	0.32
YTHA9K		35.50	-0.62	-1.21	36.01	-0.61	-1.26
Z6R8GT		36.21	0.09	0.18	36.70	0.08	0.16
Z9QM3M		36.43	0.31	0.62	37.28	0.65	1.35
ZTJBPC		36.04	-0.08	-0.16	36.89	0.27	0.55
ZUP28Q		35.89	-0.23	-0.45	35.98	-0.65	-1.34

Summary Statistics

	Sample G35		Sample G36	
Grand Means	36.12	HRC	36.62	HRC
Stnd Dev Btwn Labs	0.51	HRC	0.48	HRC

Samples G35, G36 : Fastener sizes: 1/2-20 x 2 1/2 , 1/2-20 x 1/4

Statistics based on 72 of 81 reporting participants

Comments on Assigned Data Flags for Test #125

3PR9HE (X) - Data for sample G36 are high.

8M3FML (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample G36.

B3PYRX (X) - Inconsistent in testing between samples.

BLKM3U (X) - Data for sample G35 are low.

DAJUQ9 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample G35.

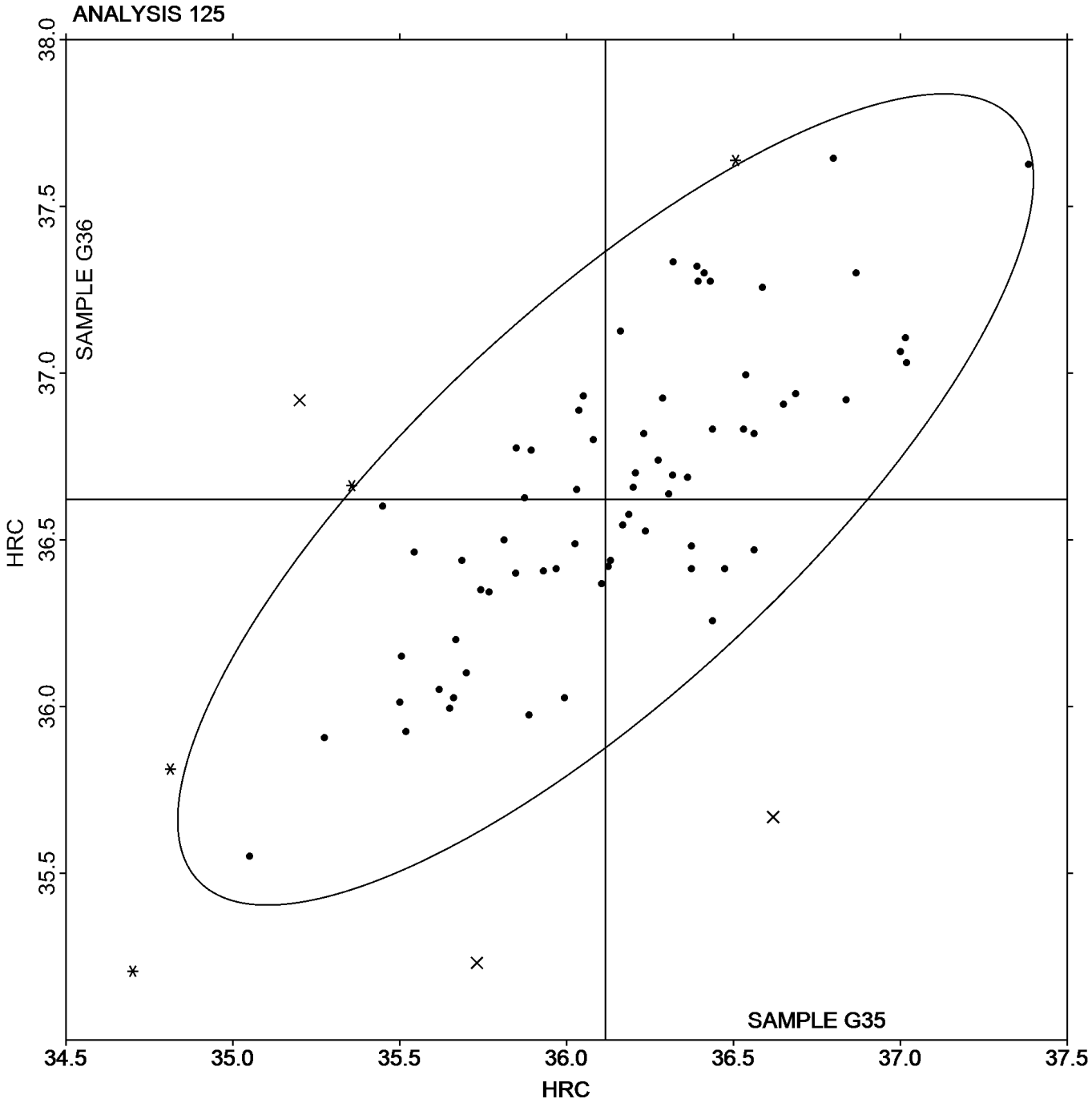
DWA7U4 (X) - Data for sample G36 are low.

UTQQ6V (X) - Data for sample G36 are low. Inconsistent within the determinations of sample G36.

XYVJZ3 (X) - Data for sample G36 are low. Inconsistent within the determinations of sample G36.

Y6GR28 (X) - Data for sample G36 are low. Inconsistent within the determinations of sample G36.

SAMPLE G35	SAMPLE G36
36.12 HRC	36.62 HRC



		Sample V35			Sample V36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HRCCB		341.75	-14.90	-2.05	346.94	-13.15	-1.66
2YXQGC		346.26	-10.39	-1.43	345.26	-14.82	-1.87
43AFV7		357.56	0.91	0.13	353.69	-6.40	-0.81
7BFRCV		355.69	-0.96	-0.13	363.19	3.10	0.39
7QPX67		355.06	-1.59	-0.22	359.94	-0.15	-0.02
BEZHDY		355.74	-0.91	-0.13	358.89	-1.20	-0.15
DAJUQ9		340.94	-15.71	-2.16	343.69	-16.40	-2.07
DTFZJ9		355.23	-1.42	-0.19	358.93	-1.16	-0.15
EBNQTN		349.38	-7.27	-1.00	351.44	-8.65	-1.09
F9HGH7		354.00	-2.65	-0.36	358.00	-2.09	-0.26
FXDPKB		358.25	1.60	0.22	358.19	-1.90	-0.24
GE38WC		351.18	-5.47	-0.75	358.43	-1.65	-0.21
JZVRCT		361.13	4.48	0.61	366.63	6.54	0.82
K2LDHP		361.63	4.98	0.68	365.13	5.04	0.63
N6RBUT		357.06	0.41	0.06	361.88	1.79	0.23
NN39AH		361.56	4.91	0.67	364.56	4.48	0.56
QGEZ6H		364.76	8.11	1.11	366.63	6.54	0.82
QY2CZX		366.38	9.73	1.34	376.19	16.10	2.03
RAGL4H		364.46	7.81	1.07	365.85	5.76	0.73
TRPCBC		353.25	-3.40	-0.47	353.38	-6.71	-0.85
U3KZNQ		350.75	-5.90	-0.81	358.69	-1.40	-0.18
V3ZJ9N		362.81	6.16	0.85	365.94	5.85	0.74
WVBG9W		364.00	7.35	1.01	365.31	5.23	0.66
X8Y4RW		357.83	1.18	0.16	362.19	2.11	0.27
Z6R8GT		369.58	12.93	1.77	373.22	13.13	1.65

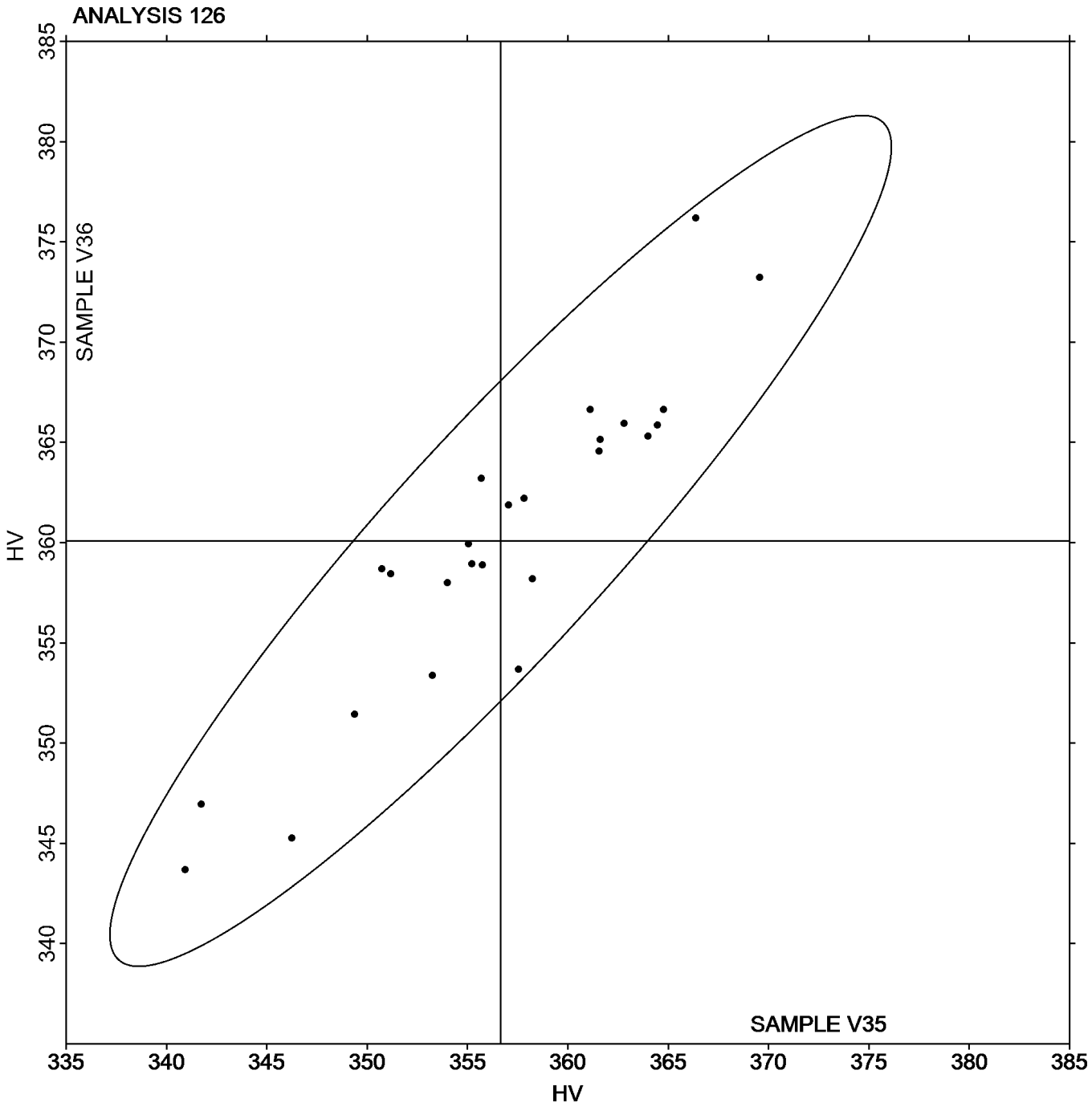
Summary Statistics

	Sample V35		Sample V36	
Grand Means	356.65	HV	360.09	HV
Stnd Dev Btwn Labs	7.28	HV	7.94	HV

Samples V35, V36 : Fastener sizes: 1/2-20 x 2 3/4 , 1/2-20 x 1/4

Statistics based on 25 of 25 reporting participants

SAMPLE V35	SAMPLE V36
356.65 HV	360.09 HV



		Sample B35			Sample B36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HRCCB		1,163	-5	-0.49	1,119	-12	-1.07
2LBGU8		1,164	-4	-0.40	1,115	-16	-1.45
43A7DG		1,182	14	1.28	1,135	4	0.39
43AFV7		1,164	-4	-0.37	1,144	13	1.13
4QYX94		1,169	0	0.04	1,127	-4	-0.35
7KML99		1,163	-5	-0.46	1,133	2	0.21
9WREYC		1,179	10	0.98	1,130	-1	-0.11
BDTZF4		1,175	7	0.63	1,136	6	0.49
BK6HCH		1,173	5	0.44	1,145	14	1.25
CWE2Z6		1,165	-3	-0.32	1,130	-1	-0.13
D3FZNZ		1,175	7	0.66	1,143	12	1.10
D94KRF		1,157	-11	-1.05	1,129	-2	-0.19
DB92ZJ		1,163	-5	-0.51	1,126	-5	-0.44
DTFZJ9		1,172	4	0.35	1,131	0	-0.03
F9HGH7		1,166	-2	-0.18	1,128	-3	-0.23
GR7CJR		1,160	-8	-0.78	1,116	-15	-1.34
HX4R2B		1,150	-18	-1.68	1,114	-17	-1.51
JAKPRZ	*	1,198	29	2.76	1,151	20	1.75
JJKCLH	*	1,184	16	1.49	1,161	30	2.64
K2LDHP		1,163	-5	-0.49	1,129	-2	-0.20
KZAM7Z		1,155	-13	-1.24	1,115	-16	-1.39
N6MY9H		1,171	3	0.26	1,134	3	0.27
QGEZ6H		1,176	8	0.75	1,128	-3	-0.27
R9ZNBH	X	1,170	2	0.15	1,495	364	32.52
TRPCBC		1,173	5	0.46	1,131	0	-0.03
W7BX6T	X	105.40	-1,063	-99.74	101.10	-1,030	-91.93
WUNKCR		1,150	-18	-1.71	1,133	2	0.21
XY992U		1,164	-4	-0.40	1,123	-8	-0.71

Summary Statistics

	Sample B35		Sample B36	
Grand Means	1,168	MPa	1,131	MPa
Stnd Dev Btwn Labs	11	MPa	11	MPa

Samples B35, B36 : Fastener sizes: M10 x 1.5 x 70, M10 x 1.5 x 80

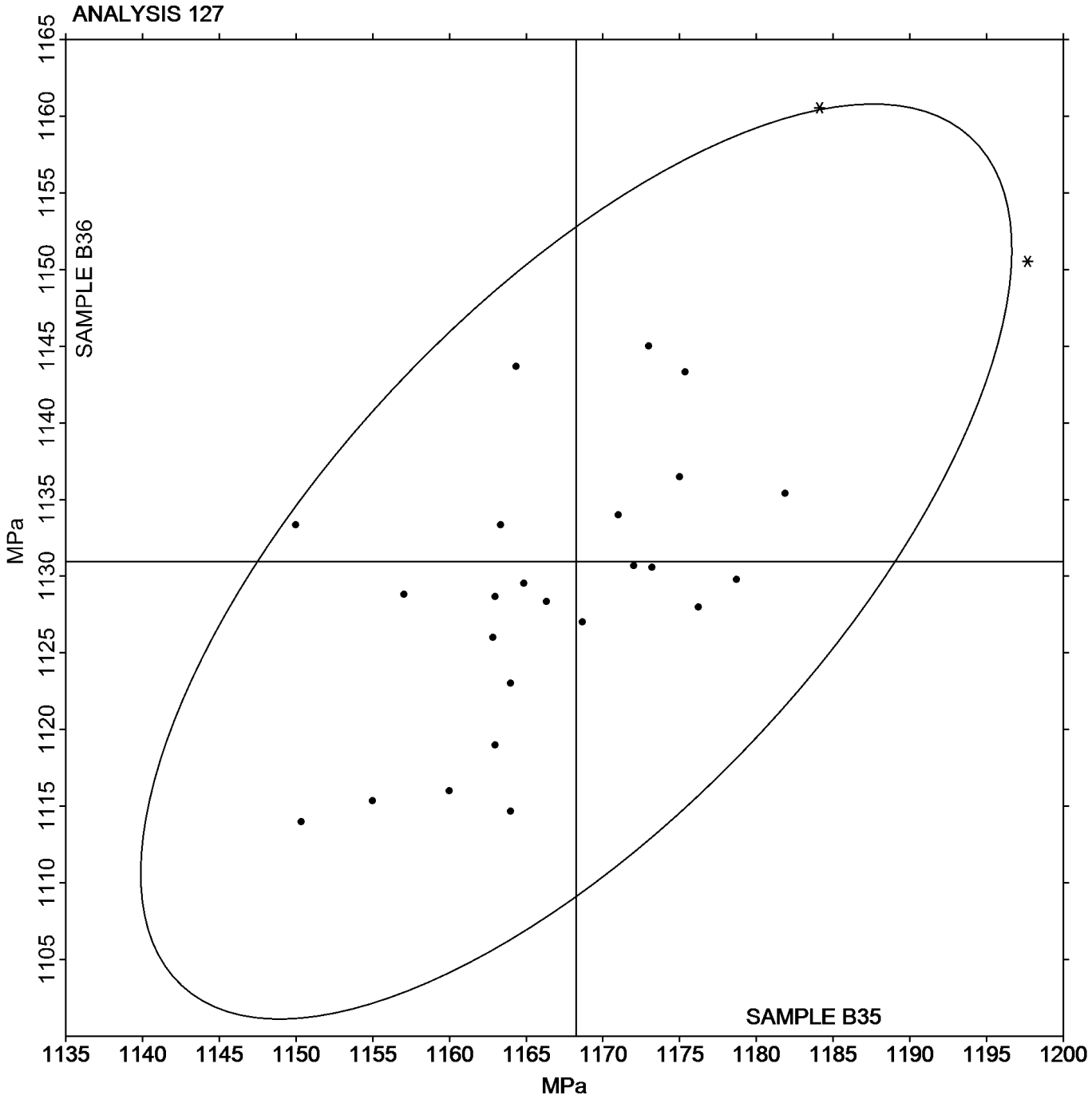
Statistics based on 26 of 28 reporting participants

Comments on Assigned Data Flags for Test #127

R9ZNBH (X) - Data for sample B36 are high. Inconsistent within the determinations of sample B36.

W7BX6T (X) - Data for both samples are low.

SAMPLE B35	SAMPLE B36
1,168 MPa	1,131 MPa



WebCode	Data Flag	Sample T35 Lab Mean	Sample T35 Diff. from Grand Mean	Sample T35 CPV	Sample T36 Lab Mean	Sample T36 Diff. from Grand Mean	Sample T36 CPV
2HRCCB		1,171	-3	-0.15	1,122	-9	-0.54
43AFV7		1,180	6	0.30	1,130	-1	-0.08
AMZHD2		1,186	12	0.65	1,137	6	0.35
BK6HCH		1,187	13	0.71	1,146	15	0.87
D3FZNZ		1,174	0	-0.01	1,144	13	0.74
FW2Z66		1,195	21	1.11	1,141	10	0.55
JAKPRZ		1,196	22	1.18	1,158	27	1.51
KAB888		1,169	-5	-0.28	1,113	-18	-1.03
R9ZNBH		1,177	2	0.13	1,138	7	0.39
TRPCBC		1,169	-5	-0.25	1,130	-1	-0.07
XF2URF		1,158	-16	-0.87	1,124	-7	-0.39
Z6R8GT		1,127	-47	-2.53	1,091	-40	-2.30

Summary Statistics

	Sample T35		Sample T36	
Grand Means	1,174	MPa	1,131	MPa
Stnd Dev Btwn Labs	19	MPa	18	MPa

Samples T35, T36 : Fastener sizes: M10 x 1.5 x 70, M10 x 1.5 x 80

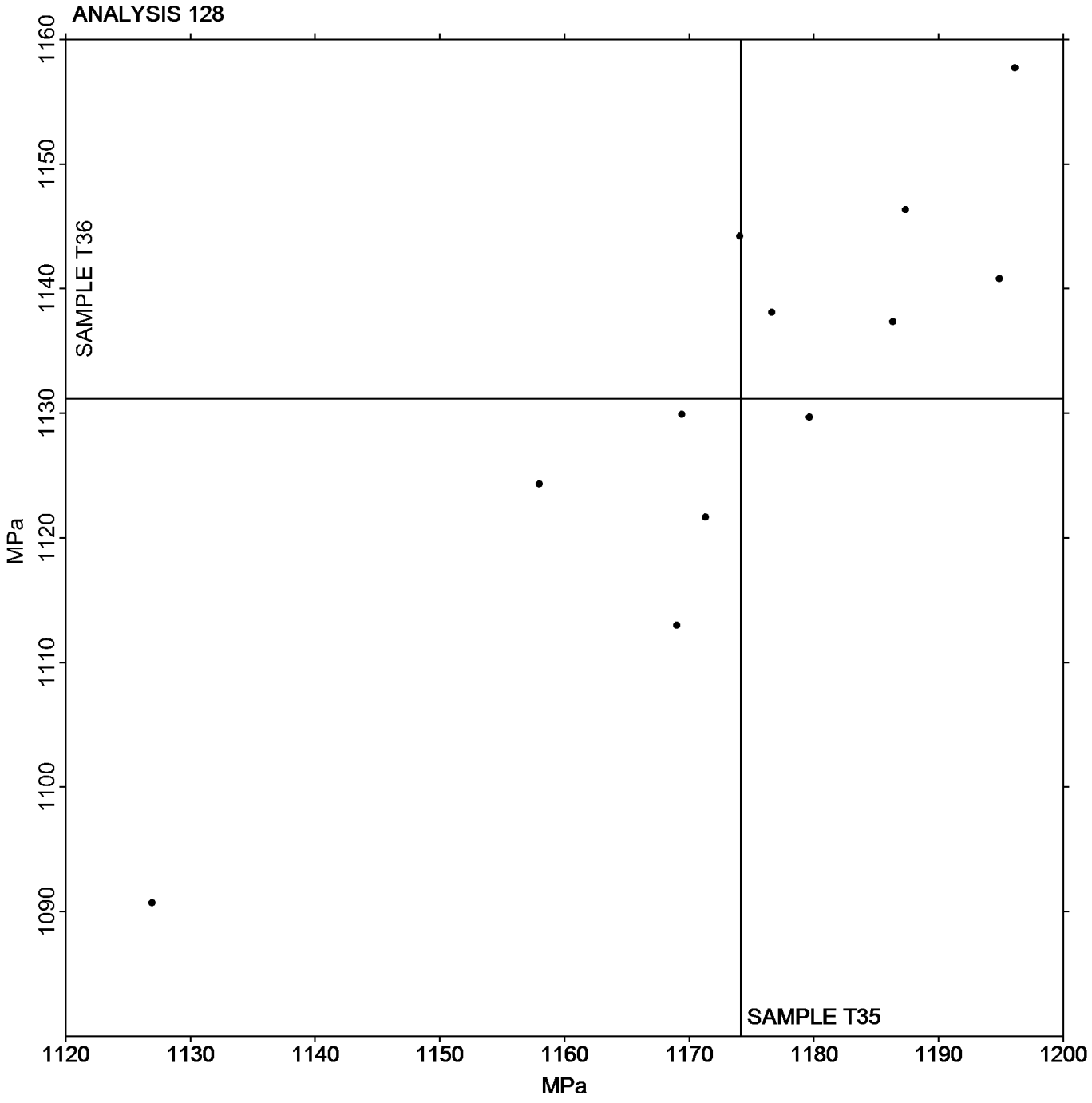
Statistics based on 12 of 12 reporting participants

Comments on Assigned Data Flags for Test #128

AMZHD2 (O) - Inconsistent within the determinations of sample T36.

SAMPLE T35
1,174 MPa

SAMPLE T36
1,131 MPa



Fasteners and Metals Interlaboratory Testing Program

Analysis 129

Fastener Double Shear - lb
NASM 1312-13

		Sample Z35			Sample Z36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
3ZCDQE		21,910	-273	-0.64	21,879	-60	-0.15
7QPX67		21,880	-303	-0.70	22,081	143	0.37
7ZEJB4		22,000	-183	-0.43	21,867	-72	-0.19
8BR6WA		22,610	427	0.99	22,534	595	1.53
9QJ3Y6		22,499	316	0.74	21,779	-160	-0.41
AMYJ7L		21,784	-399	-0.93	21,314	-624	-1.61
BLKM3U		21,990	-193	-0.45	21,787	-152	-0.39
BNBKYZ		22,183	0	0.00	21,883	-55	-0.14
EVAM3M		22,004	-179	-0.42	21,979	40	0.10
FK7RJH		22,278	95	0.22	22,480	541	1.40
JGFRUC		22,308	125	0.29	22,193	255	0.66
K62UP9		21,607	-576	-1.34	21,544	-395	-1.02
K6JZNY		21,583	-600	-1.39	21,350	-589	-1.52
MEMQPZ		22,607	424	0.99	22,754	816	2.10
N6RBUT		22,627	444	1.03	21,994	56	0.14
Q2Y2XW	*	23,210	1,028	2.39	21,866	-73	-0.19
QLAYDL		22,810	627	1.46	22,460	521	1.34
TY2HY3		22,016	-166	-0.39	21,685	-254	-0.65
WUNKCR		21,730	-453	-1.05	21,573	-366	-0.94
YTHA9K		22,020	-163	-0.38	21,773	-165	-0.43

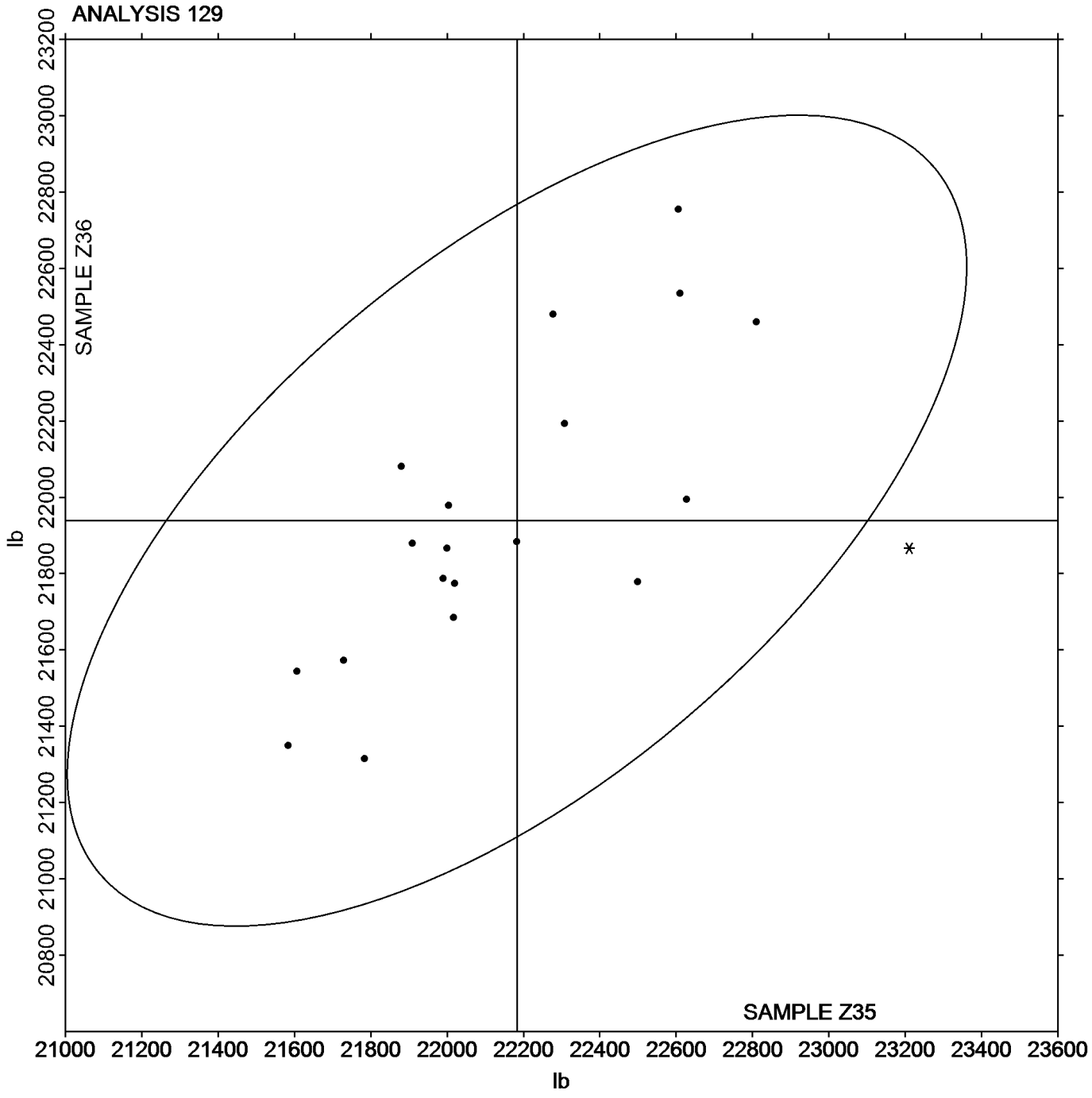
Summary Statistics

	Sample Z35		Sample Z36	
Grand Means	22,183	lb	21,939	lb
Stnd Dev Btwn Labs	430	lb	388	lb

Samples Z35, Z36 : Fastener size 3/8-16 x 2 1/4, 3/8-16 x 2 3/4

Statistics based on 20 of 20 reporting participants

SAMPLE Z35	SAMPLE Z36
22,183 lb	21,939 lb



		Sample F35			Sample F36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
23HGRP	X	50.31	6.37	8.69	54.59	3.71	4.78
263L4T		44.42	0.48	0.66	51.72	0.83	1.07
2DDNPT	X	43.56	-0.38	-0.52	46.17	-4.72	-6.08
2F38EX		43.90	-0.04	-0.06	51.00	0.12	0.15
2U87PP		43.41	-0.53	-0.72	50.63	-0.25	-0.32
2XNQC6		44.09	0.15	0.21	50.91	0.03	0.03
2YH8WE		43.78	-0.16	-0.22	50.92	0.04	0.05
3ADYLR		44.80	0.86	1.17	52.10	1.22	1.57
3DCBGR		43.10	-0.84	-1.15	49.90	-0.98	-1.27
3QMRKF		42.95	-0.99	-1.35	50.49	-0.39	-0.51
4KBADY	X	41.00	-2.94	-4.01	50.90	0.02	0.02
4NRBZ7	*	43.43	-0.51	-0.70	51.69	0.81	1.05
4Q3B6D		45.50	1.56	2.13	52.00	1.12	1.44
68EFTN		44.90	0.96	1.31	51.20	0.32	0.41
6B6F8D		44.77	0.83	1.13	51.56	0.67	0.87
6MCNMA		43.90	-0.04	-0.06	50.70	-0.18	-0.24
6NMD42		42.99	-0.95	-1.30	49.99	-0.89	-1.15
76PG3W		43.44	-0.50	-0.68	50.66	-0.22	-0.29
7DEEGJ	*	42.00	-1.94	-2.65	49.80	-1.08	-1.40
7FRWR2		44.70	0.76	1.04	51.30	0.42	0.54
7TJEPF		43.70	-0.24	-0.33	50.68	-0.21	-0.27
8HNRYH	*	42.02	-1.92	-2.62	49.43	-1.45	-1.88
8JLXJH		43.60	-0.34	-0.46	50.00	-0.88	-1.14
8LWXNP		45.00	1.06	1.45	52.20	1.32	1.70
8VVZHL		43.55	-0.39	-0.53	50.62	-0.27	-0.35
BBYJUU		43.80	-0.14	-0.19	51.30	0.42	0.54
CHB3MR		43.99	0.05	0.07	51.14	0.26	0.33
CHFA38		44.40	0.46	0.63	51.10	0.22	0.28
CJAVVX		42.93	-1.01	-1.38	49.75	-1.14	-1.46
CNEVTG		43.60	-0.34	-0.46	49.70	-1.18	-1.53
DAJUQ9		44.40	0.46	0.63	50.50	-0.38	-0.49
DUMNCJ		44.00	0.06	0.08	51.40	0.52	0.67
EBNQTN		44.53	0.59	0.80	50.62	-0.26	-0.34
EM79LV	*	43.83	-0.11	-0.15	52.14	1.26	1.62
EMGB8T		43.44	-0.50	-0.68	50.16	-0.72	-0.93
EU39VG		44.10	0.16	0.22	50.90	0.02	0.02
EZ84FG		43.73	-0.21	-0.29	50.81	-0.08	-0.10
FNRLCC	X	43.22	-0.72	-0.98	45.54	-5.34	-6.89
FQV8BA	X	41.56	-2.38	-3.25	48.00	-2.88	-3.72
FQX2UF		44.20	0.26	0.35	50.80	-0.08	-0.11
FT2ULT		44.82	0.88	1.20	51.60	0.72	0.93
G43HDQ		44.96	1.02	1.39	52.21	1.33	1.72
GGQKX4	*	43.50	-0.44	-0.60	49.20	-1.68	-2.17
GPDUVC		43.20	-0.74	-1.01	49.60	-1.28	-1.66
GY8Q8E		43.90	-0.04	-0.06	51.70	0.82	1.05
GYQKWV		44.20	0.26	0.35	50.90	0.02	0.02
HFTT39		44.09	0.15	0.21	50.91	0.03	0.03

		Sample F35			Sample F36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
J6ZRAC		44.57	0.63	0.86	51.42	0.54	0.69
JPE8RW		44.60	0.66	0.90	52.30	1.42	1.83
JTVGV3	X	43.42	-0.52	-0.72	45.27	-5.62	-7.24
JU8D3T		43.95	0.01	0.01	50.97	0.08	0.11
JY2BRJ		43.00	-0.94	-1.28	50.00	-0.88	-1.14
K4MKEM		43.95	0.01	0.01	50.62	-0.26	-0.34
K7H2YW		44.90	0.96	1.31	51.30	0.42	0.54
KAUYFR		43.60	-0.34	-0.46	51.34	0.46	0.59
KBAHZN		45.00	1.06	1.45	52.00	1.12	1.44
KBTYHC		44.30	0.36	0.49	51.10	0.22	0.28
KDTACR		43.42	-0.52	-0.71	50.44	-0.44	-0.57
KYD8WN		45.10	1.16	1.58	51.70	0.82	1.05
L7PY97		43.60	-0.34	-0.46	49.60	-1.28	-1.66
L8KHA8		44.00	0.06	0.08	51.10	0.22	0.28
LBKNV6		43.35	-0.60	-0.81	50.05	-0.83	-1.07
LKEHFH		43.70	-0.24	-0.33	50.90	0.02	0.02
M7MF9A		43.90	-0.04	-0.06	51.10	0.22	0.28
MVR63N		43.95	0.01	0.01	50.91	0.03	0.03
NWVGUA		43.99	0.05	0.07	51.11	0.23	0.29
P3XYHZ		44.30	0.36	0.49	52.00	1.12	1.44
Q7HW2P		43.02	-0.93	-1.26	50.36	-0.52	-0.68
QDTHMX		43.10	-0.84	-1.15	50.00	-0.88	-1.14
QE8P9E	X	44.40	0.46	0.63	52.80	1.92	2.47
QQGEY4		44.20	0.26	0.35	50.90	0.02	0.02
RDFYNL		44.43	0.48	0.66	51.00	0.11	0.14
RGA6YH		45.30	1.36	1.86	51.68	0.79	1.02
RMFYTD		43.90	-0.04	-0.06	51.30	0.42	0.54
RN73HE		45.00	1.06	1.45	51.60	0.72	0.92
T6Q6P2		43.02	-0.92	-1.25	50.16	-0.73	-0.94
TRK4VW		44.44	0.50	0.68	50.75	-0.13	-0.17
TWL4GN		42.90	-1.04	-1.42	49.70	-1.18	-1.53
U4EPVZ	*	45.27	1.33	1.81	52.87	1.99	2.57
V3W7CE		43.66	-0.28	-0.38	50.30	-0.58	-0.75
VJMYCK		44.16	0.22	0.30	51.54	0.66	0.85
VLU44M		43.02	-0.92	-1.26	50.04	-0.85	-1.09
VM4B2A		45.10	1.16	1.58	52.30	1.42	1.83
WF8PXG		43.50	-0.44	-0.60	50.40	-0.48	-0.62
X2FQ2B		44.16	0.22	0.31	51.20	0.32	0.41
XBF9KZ		45.40	1.46	1.99	51.60	0.72	0.92
XK7TPY		44.50	0.55	0.76	51.52	0.64	0.82
XLJHVW		43.80	-0.14	-0.19	50.70	-0.18	-0.24
XPM6TU		43.77	-0.17	-0.23	50.36	-0.53	-0.68
XV6M3V		42.26	-1.68	-2.29	49.43	-1.45	-1.87
XXFF7B		44.09	0.15	0.21	50.91	0.03	0.03
Y2NCXP	X	39.97	-3.97	-5.42	48.87	-2.02	-2.60
Y8F89A		43.20	-0.74	-1.01	49.90	-0.98	-1.27
Y9CQAB	X	15.25	-28.69	-39.15	50.50	-0.38	-0.49

WebCode	Data Flag	Sample F35 Lab Mean	Sample F35 Diff. from Grand Mean	Sample F35 CPV	Sample F36 Lab Mean	Sample F36 Diff. from Grand Mean	Sample F36 CPV
YKALCD		44.20	0.26	0.35	50.10	-0.78	-1.01
YQHZ4A		44.20	0.26	0.35	51.40	0.52	0.67
YVMZ2T	X	49.90	5.96	8.13	43.70	-7.18	-9.26
ZBGQP3		43.10	-0.84	-1.15	50.00	-0.88	-1.14
ZKLTWL		43.20	-0.74	-1.01	50.50	-0.38	-0.49
ZUQPWH		44.02	0.08	0.11	51.11	0.23	0.29

Summary Statistics

	Sample F35		Sample F36	
Grand Means	43.94	ksi	50.88	ksi
Stnd Dev Btwn Labs	0.73	ksi	0.78	ksi

Samples F35, F36 : AISI 1010 - 16G , AISI 1010 - 14G

Statistics based on 90 of 100 reporting participants

Comments on Assigned Data Flags for Test #130

23HGRP (X) - Data for both samples are high. Possible Systematic Error.

2DDNPT (X) - Data for sample F36 are low.

4KBADY (X) - Data for sample F35 are low.

FNRLCC (X) - Data for sample F36 are low.

FQV8BA (X) - Data for both samples are low. Possible Systematic Error.

JTVGV3 (X) - Data for sample F36 are low.

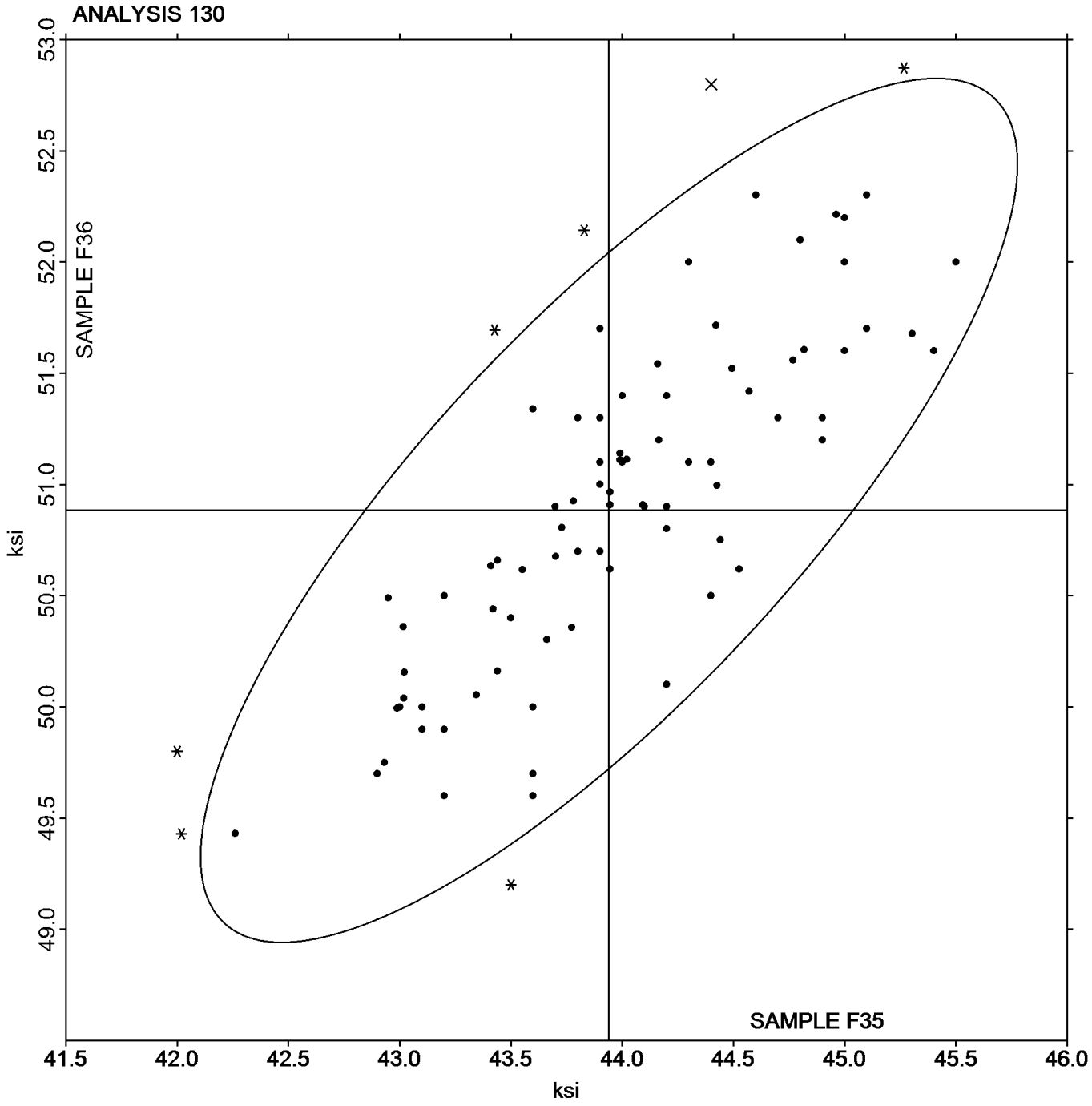
QE8P9E (X) - Inconsistent in testing between samples.

Y2NCXP (X) - Data for sample F35 are low.

Y9CQAB (X) - Data for sample F35 are low.

YVMZ2T (X) - Data for sample F35 are high and data for sample F36 are low. Inconsistent in testing between samples.

SAMPLE F35	SAMPLE F36
43.94 ksi	50.88 ksi



		Sample F35			Sample F36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
23HGRP	X	29.54	4.52	4.42	55.25	19.37	21.44
263L4T		26.51	1.50	1.46	36.56	0.67	0.74
2DDNPT	X	25.04	0.02	0.02	32.36	-3.52	-3.90
2F38EX		24.40	-0.62	-0.60	35.10	-0.79	-0.87
2U87PP		23.79	-1.23	-1.20	35.00	-0.89	-0.98
2XNQC6		24.80	-0.22	-0.21	35.68	-0.21	-0.23
2YH8WE		24.72	-0.29	-0.29	35.57	-0.32	-0.35
3ADYLR	*	28.10	3.08	3.01	38.00	2.11	2.34
3DCBGR		25.50	0.48	0.47	35.00	-0.89	-0.98
3QMRKF		24.65	-0.37	-0.36	35.93	0.05	0.05
4KBADY		23.70	-1.32	-1.29	36.50	0.61	0.68
4NRBZ7		24.57	-0.44	-0.43	36.40	0.52	0.57
4Q3B6D		26.90	1.88	1.84	37.60	1.71	1.90
68EFTN		26.70	1.68	1.64	37.20	1.31	1.46
6B6F8D		25.26	0.24	0.23	36.17	0.28	0.31
6MCNMA		24.40	-0.62	-0.60	35.00	-0.89	-0.98
6NMD42		25.47	0.45	0.44	35.80	-0.09	-0.10
76PG3W		24.35	-0.67	-0.65	36.30	0.41	0.46
7DEEGJ		25.00	-0.02	-0.02	35.70	-0.19	-0.21
7FRWR2		25.00	-0.02	-0.02	36.10	0.21	0.24
7TJEPF		24.00	-1.01	-0.99	34.91	-0.97	-1.08
8HNRYH	X	42.32	17.30	16.90	49.29	13.40	14.84
8JLXJH		24.10	-0.92	-0.90	34.70	-1.19	-1.31
8LWXNP		23.50	-1.52	-1.48	36.10	0.21	0.24
8VVZHL		24.15	-0.87	-0.85	35.95	0.07	0.08
BBYJUU		25.00	-0.02	-0.02	37.60	1.71	1.90
CHB3MR		23.60	-1.42	-1.39	35.11	-0.77	-0.85
CHFA38		25.70	0.68	0.67	36.50	0.61	0.68
CJAVVX		23.50	-1.52	-1.49	34.37	-1.51	-1.67
CNEVTG		26.20	1.18	1.16	35.80	-0.09	-0.09
DAJUQ9		24.50	-0.52	-0.51	34.30	-1.59	-1.76
DUMNCJ		25.90	0.88	0.86	37.10	1.21	1.35
EBNQTN		26.54	1.52	1.49	36.40	0.52	0.58
EM79LV	*	23.97	-1.05	-1.02	37.21	1.32	1.46
EMGB8T		25.19	0.17	0.17	34.66	-1.23	-1.36
EU39VG		24.70	-0.32	-0.31	36.10	0.21	0.24
EZ84FG		25.66	0.64	0.63	37.09	1.20	1.33
FNRLCC	X	24.51	-0.51	-0.49	31.04	-4.85	-5.37
FQV8BA	*	23.71	-1.31	-1.28	33.48	-2.41	-2.66
FQX2UF		25.20	0.18	0.18	36.60	0.71	0.79
FT2ULT		24.87	-0.14	-0.14	36.22	0.33	0.37
G43HDQ		26.40	1.38	1.35	38.15	2.26	2.50
GGQKX4		24.50	-0.52	-0.51	34.80	-1.09	-1.20
GPDUVC		25.70	0.68	0.67	35.10	-0.79	-0.87
GY8Q8E		26.90	1.88	1.84	35.90	0.01	0.02
GYQKWV		25.00	-0.02	-0.02	35.10	-0.79	-0.87
HFTT39		24.37	-0.65	-0.64	34.88	-1.00	-1.11

Fasteners and Metals Interlaboratory Testing Program

Analysis 131

Yield Strength (Flat Steel) - ksi
ASTM E8

Cycle 114
2nd Qtr
2016

		Sample F35			Sample F36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
J6ZRAC		26.16	1.14	1.12	36.70	0.81	0.90
JPE8RW		23.60	-1.42	-1.38	36.50	0.61	0.68
JTVGV3	X	26.60	1.59	1.55	25.48	-10.40	-11.52
JU8D3T		25.38	0.36	0.36	35.53	-0.35	-0.39
JY2BRJ		25.70	0.68	0.67	36.20	0.31	0.35
K4MKEM		25.24	0.22	0.21	36.11	0.23	0.25
K7H2YW		25.40	0.38	0.37	36.30	0.41	0.46
KAUYFR		25.35	0.33	0.32	36.94	1.05	1.17
KBAHZN		25.80	0.78	0.76	36.60	0.71	0.79
KBTYHC		23.00	-2.02	-1.97	34.10	-1.79	-1.98
KDTACR	X	22.62	-2.40	-2.34	36.62	0.73	0.81
KYD8WN		25.20	0.18	0.18	36.50	0.61	0.68
L7PY97		25.00	-0.02	-0.02	35.30	-0.59	-0.65
L8KHA8		26.40	1.38	1.35	37.00	1.11	1.23
LBKNV6		24.23	-0.79	-0.77	35.38	-0.51	-0.56
LKEHFH		24.20	-0.82	-0.80	35.70	-0.19	-0.21
M7MF9A		25.80	0.78	0.76	36.10	0.21	0.24
MVR63N		25.73	0.71	0.69	36.62	0.73	0.81
NWVGUA		25.56	0.54	0.53	36.11	0.22	0.25
P3XYHZ	X	27.00	1.98	1.94	39.20	3.31	3.67
Q7HW2P		25.40	0.38	0.38	35.51	-0.38	-0.42
QDTHMX		24.70	-0.32	-0.31	36.30	0.41	0.46
QE8P9E	X	19.50	-5.52	-5.39	36.70	0.81	0.90
QQGEY4		26.80	1.78	1.74	37.10	1.21	1.35
RDFYNL	*	27.59	2.57	2.51	35.87	-0.02	-0.02
RGA6YH		25.06	0.04	0.04	35.84	-0.04	-0.05
RMFYTD		24.70	-0.32	-0.31	36.10	0.21	0.24
RN73HE		25.80	0.78	0.76	36.90	1.01	1.12
TRK4VW		24.49	-0.52	-0.51	35.80	-0.09	-0.10
TWL4GN		25.00	-0.02	-0.02	34.90	-0.99	-1.09
U4EPVZ	X	29.03	4.01	3.91	38.63	2.75	3.04
V3W7CE		25.67	0.66	0.64	34.75	-1.13	-1.26
VJMYCK		23.98	-1.04	-1.01	35.10	-0.79	-0.87
VLU44M		23.10	-1.91	-1.87	34.55	-1.34	-1.48
VM4B2A		25.10	0.08	0.08	36.90	1.01	1.12
WF8PXG		24.10	-0.92	-0.90	35.60	-0.29	-0.32
X2FQ2B		24.19	-0.82	-0.81	35.43	-0.45	-0.50
XBF9KZ		26.70	1.68	1.64	36.30	0.41	0.46
XK7TPY		25.18	0.16	0.16	36.67	0.79	0.87
XLJHVW		23.80	-1.22	-1.19	35.10	-0.79	-0.87
XPM6TU		24.82	-0.20	-0.20	35.77	-0.12	-0.13
XV6M3V		23.46	-1.55	-1.52	35.65	-0.24	-0.26
XXFF7B		24.37	-0.65	-0.64	34.81	-1.08	-1.19
Y2NCXP		23.76	-1.26	-1.23	36.10	0.22	0.24
Y8F89A		23.80	-1.22	-1.19	34.60	-1.29	-1.42
Y9CQAB	X	10.78	-14.24	-13.90	35.50	-0.39	-0.43
YKALCD		26.00	0.98	0.96	35.00	-0.89	-0.98

WebCode	Data Flag	Sample F35 Lab Mean	Sample F35 Diff. from Grand Mean	Sample F35 CPV	Sample F36 Lab Mean	Sample F36 Diff. from Grand Mean	Sample F36 CPV
YQHZ4A		24.50	-0.52	-0.51	35.40	-0.49	-0.54
YVMZ2T	X	35.50	10.48	10.24	25.20	-10.69	-11.83
ZBGQP3		25.40	0.38	0.37	36.40	0.51	0.57
ZKLTWL		24.50	-0.52	-0.51	35.30	-0.59	-0.65
ZUQPWH		25.12	0.10	0.10	36.74	0.85	0.94

Summary Statistics

	Sample F35		Sample F36	
Grand Means	25.02	ksi	35.89	ksi
Stnd Dev Btwn Labs	1.02	ksi	0.90	ksi

Samples F35, F36 : AISI 1010 - 16G , AISI 1010 - 14G

Statistics based on 88 of 99 reporting participants

Comments on Assigned Data Flags for Test #131

23HGRP (X) - Data for both samples are high.

2DDNPT (X) - Data for sample F36 are low.

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

FNRLCC (X) - Data for sample F36 are low.

JTVGV3 (X) - Data for sample F36 are low.

KDTACR (X) - Inconsistent in testing between samples.

P3XYHZ (X) - Data for sample F36 are high.

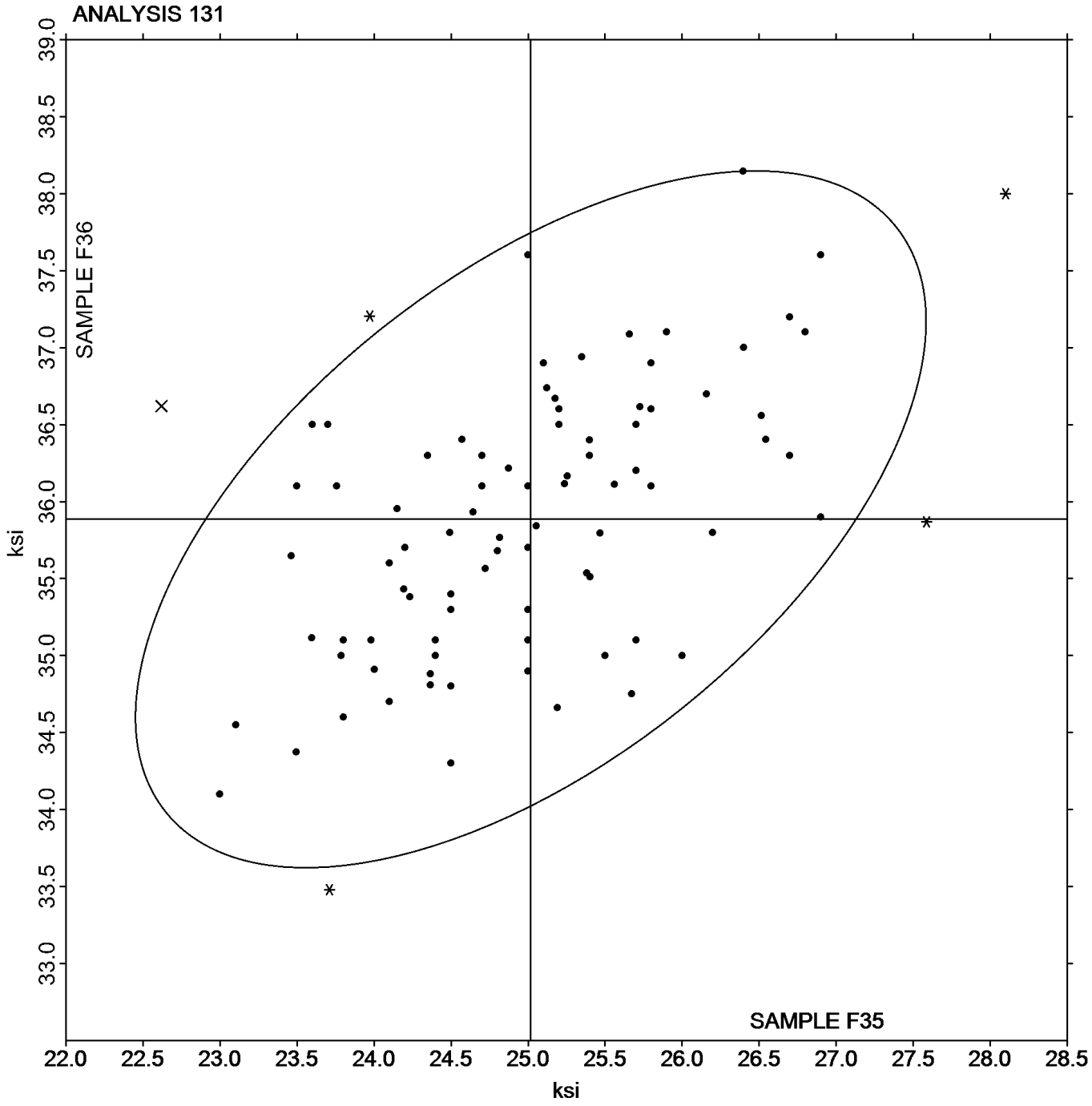
QE8P9E (X) - Data for sample F35 are low.

U4EPVZ (X) - Data for both samples are high.

Y9CQAB (X) - Data for sample F35 are low.

YVMZ2T (X) - Data for sample F35 are high and data for sample F36 are low.

SAMPLE F35	SAMPLE F36
25.02 ksi	35.89 ksi



		Sample F35			Sample F36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
23HGRP		42.32	-1.82	-0.64	32.40	-2.31	-0.96
263L4T		45.30	1.16	0.41	35.86	1.15	0.48
2DDNPT	X	42.00	-2.14	-0.76	25.00	-9.71	-4.04
2F38EX		42.70	-1.44	-0.51	33.30	-1.41	-0.59
2U87PP		44.30	0.16	0.06	35.00	0.29	0.12
2XNQC6		45.20	1.06	0.38	36.00	1.29	0.54
2YH8WE		41.63	-2.51	-0.89	32.35	-2.36	-0.98
3ADYLR		43.00	-1.14	-0.40	34.90	0.19	0.08
3DCBGR	*	51.00	6.86	2.43	37.60	2.89	1.20
3QMRKF		41.40	-2.74	-0.97	31.30	-3.41	-1.42
4KBADY		46.30	2.16	0.76	36.60	1.89	0.79
4NRBZ7		43.70	-0.44	-0.16	34.46	-0.25	-0.10
4Q3B6D		39.98	-4.16	-1.47	32.43	-2.28	-0.95
68EFTN	X	45.10	0.96	0.34	29.20	-5.51	-2.29
6B6F8D		45.00	0.86	0.30	36.20	1.49	0.62
6MCNMA		41.50	-2.64	-0.93	34.00	-0.71	-0.30
6NMD42		42.50	-1.64	-0.58	35.50	0.79	0.33
76PG3W		44.00	-0.14	-0.05	33.70	-1.01	-0.42
7DEEGJ		41.50	-2.64	-0.93	31.90	-2.81	-1.17
7FRWR2		41.10	-3.04	-1.08	32.40	-2.31	-0.96
7TJEPF		40.70	-3.44	-1.22	29.90	-4.81	-2.00
8HNRYH	*	52.00	7.86	2.78	39.00	4.29	1.78
8JLXJH		45.00	0.86	0.30	35.00	0.29	0.12
8LWXNP		45.60	1.46	0.52	36.90	2.19	0.91
8VVZHL		49.36	5.22	1.85	38.34	3.63	1.51
BBYJUU		40.00	-4.14	-1.47	29.60	-5.11	-2.12
CHB3MR		45.10	0.96	0.34	35.90	1.19	0.49
CHFA38		40.60	-3.54	-1.25	32.60	-2.11	-0.88
CNEVTG		43.70	-0.44	-0.16	35.90	1.19	0.49
DAJUQ9		45.80	1.66	0.59	37.50	2.79	1.16
DUMNCJ		43.60	-0.54	-0.19	34.40	-0.31	-0.13
EBNQTN		46.00	1.86	0.66	38.00	3.29	1.37
EM79LV		43.57	-0.57	-0.20	34.51	-0.20	-0.08
EMGB8T		43.02	-1.12	-0.40	34.68	-0.03	-0.01
EU39VG		45.70	1.56	0.55	36.80	2.09	0.87
EZ84FG		41.90	-2.24	-0.79	33.50	-1.21	-0.50
FNRLCC	*	50.73	6.59	2.33	38.23	3.52	1.46
FQV8BA	*	46.68	2.54	0.90	39.65	4.94	2.05
FQX2UF		43.60	-0.54	-0.19	34.10	-0.61	-0.25
FT2ULT		42.30	-1.84	-0.65	32.52	-2.19	-0.91
G43HDQ		41.34	-2.80	-0.99	31.25	-3.46	-1.44
GGQKX4	X	47.50	3.36	1.19	41.50	6.79	2.82
GPDUVC		42.50	-1.64	-0.58	33.10	-1.61	-0.67
GY8Q8E	*	38.30	-5.84	-2.07	33.30	-1.41	-0.59
GYQKWV		44.40	0.26	0.09	36.30	1.59	0.66
HFTT39		44.70	0.56	0.20	34.90	0.19	0.08
J6ZRAC	*	50.88	6.74	2.39	37.67	2.96	1.23

		Sample F35			Sample F36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
JPE8RW		40.60	-3.54	-1.25	31.90	-2.81	-1.17
JTVGV3	X	45.47	1.33	0.47	44.61	9.90	4.11
JU8D3T		42.30	-1.84	-0.65	33.10	-1.61	-0.67
JY2BRJ		46.90	2.76	0.98	37.40	2.69	1.12
K4MKEM		42.00	-2.14	-0.76	35.00	0.29	0.12
K7H2YW		46.40	2.26	0.80	37.30	2.59	1.08
KAUYFR		46.00	1.86	0.66	36.00	1.29	0.54
KBAHZN		46.10	1.96	0.69	37.40	2.69	1.12
KBTYHC		45.80	1.66	0.59	36.00	1.29	0.54
KDTACR		48.00	3.86	1.37	36.00	1.29	0.54
KYD8WN		41.40	-2.74	-0.97	33.00	-1.71	-0.71
L7PY97		43.00	-1.14	-0.40	33.00	-1.71	-0.71
L8KHA8	*	37.90	-6.24	-2.21	27.70	-7.01	-2.91
LBKNV6		44.30	0.16	0.06	34.50	-0.21	-0.09
LKEHFH		44.80	0.66	0.23	33.60	-1.11	-0.46
M7MF9A		41.40	-2.74	-0.97	32.80	-1.91	-0.79
MVR63N		46.64	2.50	0.89	38.02	3.31	1.38
NWVGUA		44.75	0.61	0.22	36.40	1.69	0.70
P3XYHZ		41.00	-3.14	-1.11	30.10	-4.61	-1.92
Q7HW2P		43.00	-1.14	-0.40	32.00	-2.71	-1.13
QDTHMX		47.50	3.36	1.19	36.70	1.99	0.83
QE8P9E		48.20	4.06	1.44	39.70	4.99	2.07
QQGEY4		45.40	1.26	0.45	35.00	0.29	0.12
RDFYNL		43.50	-0.64	-0.23	35.30	0.59	0.25
RGA6YH		41.78	-2.36	-0.84	33.38	-1.33	-0.55
RMFYTD		44.70	0.56	0.20	35.40	0.69	0.29
RN73HE		46.00	1.86	0.66	35.00	0.29	0.12
T6Q6P2		38.90	-5.24	-1.85	28.90	-5.81	-2.41
TRK4VW		46.00	1.86	0.66	39.00	4.29	1.78
TWL4GN		46.70	2.56	0.91	36.40	1.69	0.70
U4EPVZ	X	37.90	-6.24	-2.21	34.00	-0.71	-0.30
V3W7CE		42.00	-2.14	-0.76	36.00	1.29	0.54
VJMYCK		44.97	0.83	0.29	35.82	1.11	0.46
VLU44M		44.90	0.76	0.27	34.30	-0.41	-0.17
VM4B2A		45.50	1.36	0.48	35.40	0.69	0.29
WF8PXG	*	50.00	5.86	2.07	36.40	1.69	0.70
X2FQ2B		44.70	0.56	0.20	35.30	0.59	0.25
XBF9KZ		41.00	-3.14	-1.11	31.40	-3.31	-1.38
XK7TPY		45.10	0.96	0.34	35.80	1.09	0.45
XLJHVW		42.50	-1.64	-0.58	33.50	-1.21	-0.50
XPM6TU		46.10	1.96	0.69	34.70	-0.01	0.00
XV6M3V	X	49.92	5.78	2.05	35.05	0.34	0.14
XXFF7B		44.60	0.46	0.16	34.35	-0.36	-0.15
Y2NCXP	X	33.50	-10.64	-3.77	24.50	-10.21	-4.24
Y8F89A		43.50	-0.64	-0.23	34.50	-0.21	-0.09
Y9CQAB		45.40	1.26	0.45	36.20	1.49	0.62
YKALCD	X	43.70	-0.44	-0.16	50.10	15.39	6.40

WebCode	Data Flag	Sample F35 Lab Mean	Sample F35 Diff. from Grand Mean	Sample F35 CPV	Sample F36 Lab Mean	Sample F36 Diff. from Grand Mean	Sample F36 CPV
YQHZ4A		39.70	-4.44	-1.57	31.80	-2.91	-1.21
YVMZ2T	X	35.40	-8.74	-3.09	45.00	10.29	4.28
ZBGQP3		46.00	1.86	0.66	36.50	1.79	0.74
ZKLTWL		44.00	-0.14	-0.05	34.00	-0.71	-0.30
ZUQPWH		42.10	-2.04	-0.72	32.50	-2.21	-0.92

Summary Statistics

	Sample F35		Sample F36	
Grand Means	44.14	Percent	34.71	Percent
Stnd Dev Btwn Labs	2.83	Percent	2.41	Percent

Samples F35, F36 : AISI 1010 - 16G , AISI 1010 - 14G

Statistics based on 90 of 99 reporting participants

Comments on Assigned Data Flags for Test #132

2DDNPT (X) - Data for sample F36 are low.

68EFTN (X) - Inconsistent in testing between samples.

GGQKX4 (X) - Data for sample F36 are high.

JTVGV3 (X) - Data for sample F36 are high.

U4EPVZ (X) - Inconsistent in testing between samples.

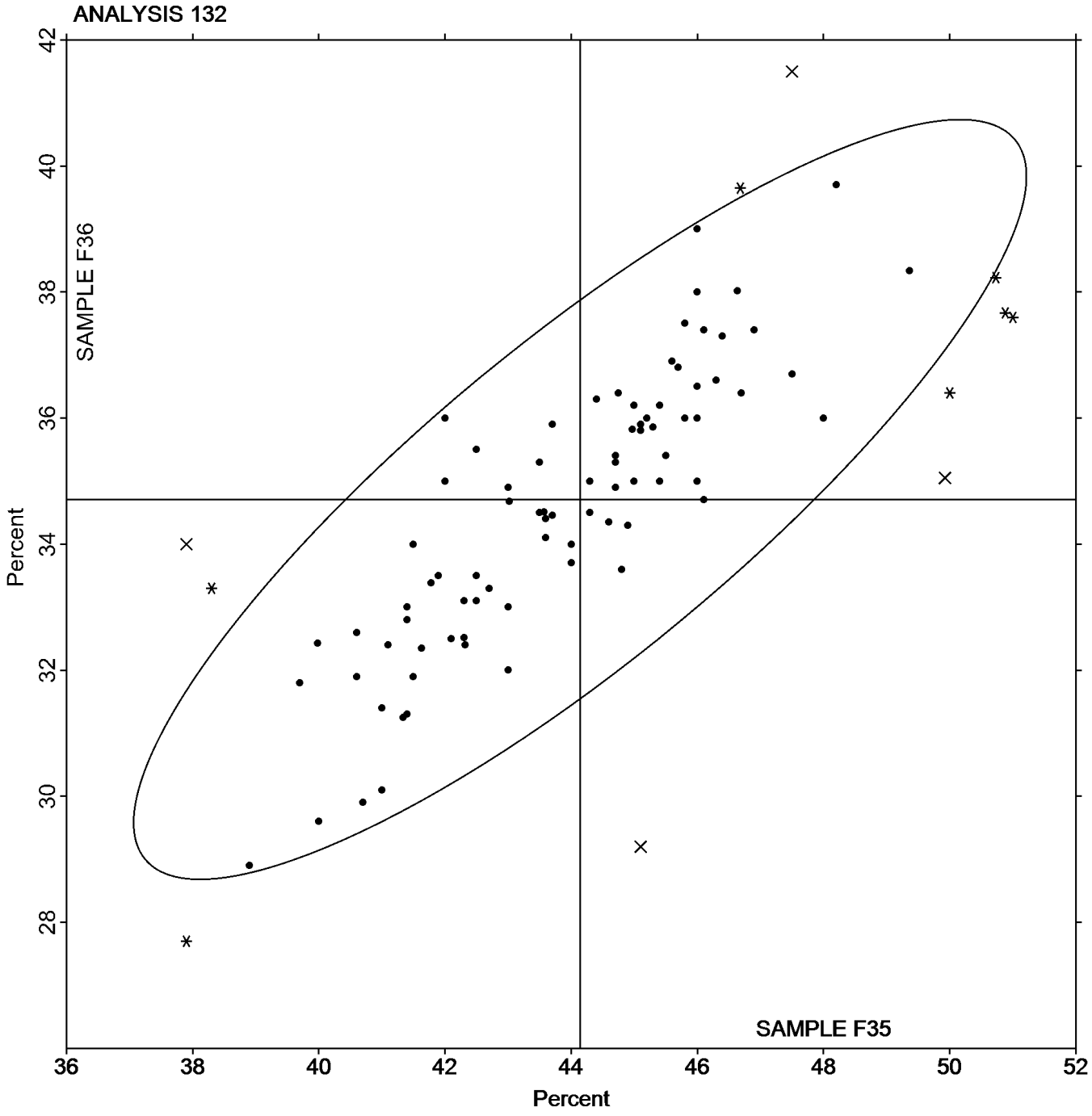
XV6M3V (X) - Inconsistent in testing between samples.

Y2NCXP (X) - Data for both samples are low. Possible Systematic Error.

YKALCD (X) - Data for sample F36 are high.

YVMZ2T (X) - Data for sample F35 are low and data for sample F36 are high. Inconsistent in testing between samples.

SAMPLE F35	SAMPLE F36
44.14 Percent	34.71 Percent



		Sample E35			Sample E36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2F38EX		75.00	-0.83	-1.29	70.16	-0.88	-1.86
2QMEDM		75.44	-0.39	-0.61	71.10	0.06	0.14
2TBT4H		75.40	-0.43	-0.67	71.40	0.36	0.77
3ADYLR		75.78	-0.05	-0.07	71.10	0.06	0.14
3ZCDQE		74.84	-0.99	-1.54	70.14	-0.90	-1.90
4W94Y9		76.34	0.51	0.80	70.42	-0.62	-1.31
4WGCNV		75.83	0.00	0.01	70.51	-0.53	-1.12
78VY2T		75.82	-0.01	-0.01	71.24	0.20	0.43
7LH83Z		76.16	0.33	0.52	70.64	-0.40	-0.84
7ZY8TY		75.90	0.07	0.11	71.46	0.42	0.90
8EQJKZ		76.22	0.39	0.61	71.26	0.22	0.48
8WT2TJ	*	73.82	-2.01	-3.14	70.32	-0.72	-1.52
9DPZ4Q		76.50	0.67	1.05	71.34	0.30	0.65
9NWKGK		75.74	-0.09	-0.14	70.86	-0.18	-0.37
9WP244		76.24	0.41	0.64	71.92	0.88	1.88
9WREYC		76.16	0.33	0.52	71.50	0.46	0.99
A86XWD		76.02	0.19	0.30	71.30	0.26	0.56
AFG3Y7		76.50	0.67	1.05	71.00	-0.04	-0.07
AMYJ7L		75.60	-0.23	-0.36	70.88	-0.16	-0.33
BRQ27J		76.12	0.29	0.46	71.88	0.84	1.79
CUWWC9		75.88	0.05	0.08	71.68	0.64	1.37
FCA2TF		76.00	0.17	0.27	70.90	-0.14	-0.29
HHF64Y		76.42	0.59	0.92	71.08	0.04	0.10
HTD99T		76.40	0.57	0.89	71.54	0.50	1.07
HX4R2B		74.72	-1.11	-1.73	70.58	-0.46	-0.97
K62UP9		74.80	-1.03	-1.61	70.26	-0.78	-1.65
LQGQKP		76.44	0.61	0.96	71.10	0.06	0.14
MJCEYC		75.96	0.13	0.21	71.46	0.42	0.90
MNAVER		75.77	-0.06	-0.09	71.04	0.00	0.01
N6RBUT		74.68	-1.15	-1.79	70.66	-0.38	-0.80
NBD9JF	X	74.50	-1.33	-2.07	68.98	-2.06	-4.36
PRY3VQ		76.90	1.07	1.67	71.46	0.42	0.90
RAQY3B		75.84	0.01	0.02	71.10	0.06	0.14
RDFYNL		76.20	0.37	0.58	71.50	0.46	0.99
VTCJKY		75.58	-0.25	-0.39	70.78	-0.26	-0.54
W7BX6T		75.70	-0.13	-0.20	70.50	-0.54	-1.14
W7DTNY		76.12	0.29	0.46	71.56	0.52	1.11
WUNKCR		76.02	0.19	0.30	71.12	0.08	0.18
XYVJZ3		74.66	-1.17	-1.82	70.12	-0.92	-1.94
Y8F89A		76.20	0.37	0.58	71.00	-0.04	-0.07
YKALCD		76.80	0.97	1.52	71.06	0.02	0.05
YTHA9K		76.54	0.71	1.11	71.46	0.42	0.90
YUDRAL		76.02	0.19	0.30	71.38	0.34	0.73
ZKLTWL		75.52	-0.31	-0.48	70.74	-0.30	-0.63

Summary Statistics

	Sample E35		Sample E36	
Grand Means	75.83	HR30N	71.04	HR30N
Stnd Dev Btwn Labs	0.64	HR30N	0.47	HR30N

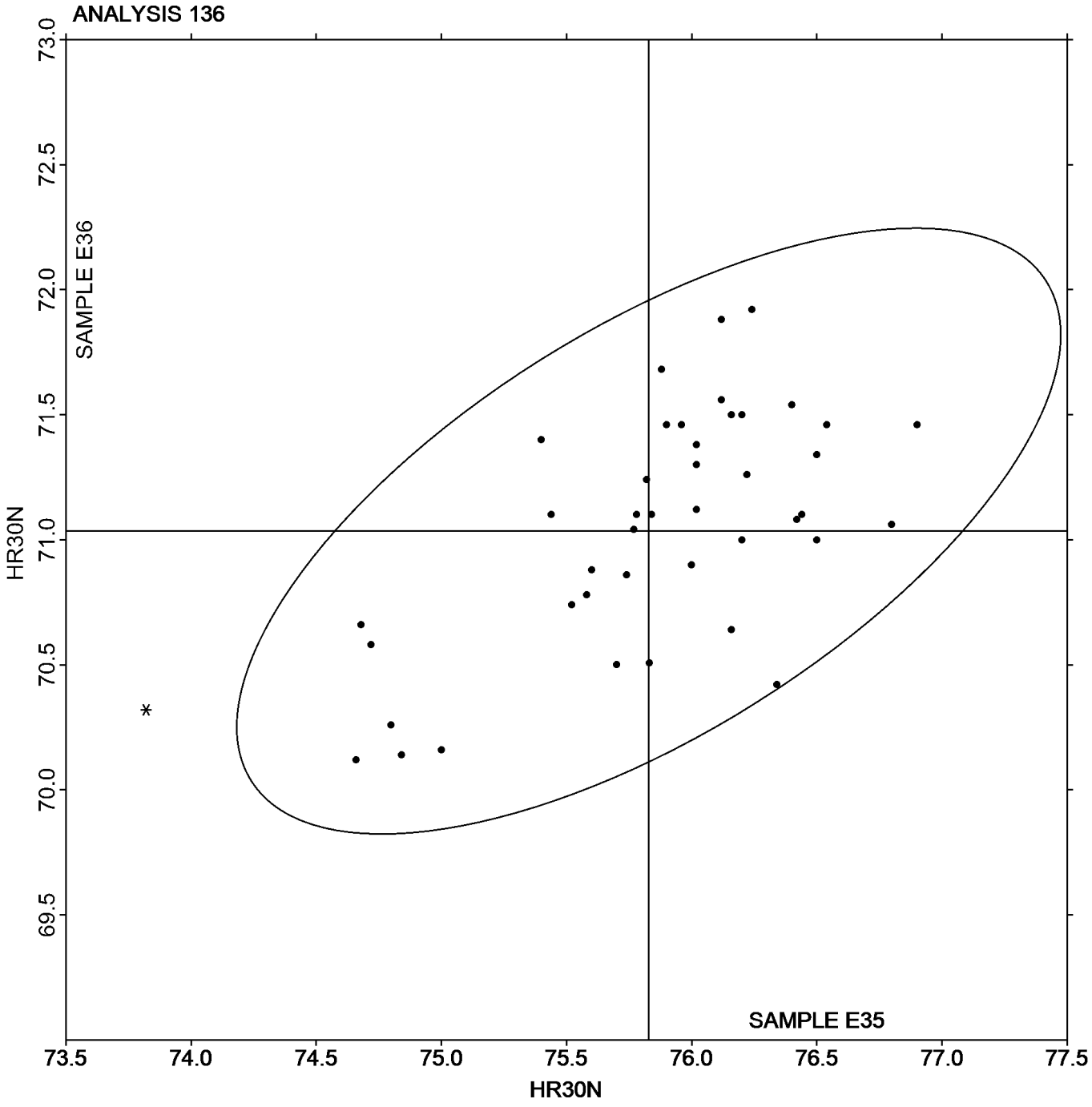
Samples E35, E36 : Steel

Statistics based on 43 of 44 reporting participants

Comments on Assigned Data Flags for Test #136

NBD9JF (X) - Data for sample E36 are low. Inconsistent within the determinations of sample E35.

SAMPLE E35	SAMPLE E36
75.83 HR30N	71.04 HR30N



		Sample C35			Sample C36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2LBGU8		0.0184	0.0013	0.54	0.0298	0.0038	0.89
3ZCDQE		0.0146	-0.0025	-0.99	0.0211	-0.0050	-1.17
4GVT8F		0.0158	-0.0013	-0.51	0.0226	-0.0035	-0.81
744LN6		0.0187	0.0017	0.66	0.0280	0.0020	0.46
78VY2T		0.0164	-0.0007	-0.27	0.0264	0.0004	0.09
7FD9RB		0.0154	-0.0017	-0.66	0.0267	0.0007	0.16
86PVQH		0.0148	-0.0023	-0.90	0.0252	-0.0009	-0.20
87GRFB		0.0183	0.0012	0.47	0.0273	0.0013	0.30
8VVZHL		0.0182	0.0011	0.44	0.0247	-0.0014	-0.33
8WT2TJ		0.0140	-0.0030	-1.20	0.0236	-0.0025	-0.58
9WP244		0.0184	0.0013	0.53	0.0228	-0.0033	-0.76
9WREYC		0.0137	-0.0034	-1.36	0.0216	-0.0045	-1.05
AZ6NFM		0.0153	-0.0018	-0.70	0.0271	0.0011	0.25
BDTZF4	*	0.0104	-0.0067	-2.65	0.0126	-0.0135	-3.15
BEZHDY		0.0176	0.0006	0.22	0.0232	-0.0029	-0.68
BRQ27J		0.0166	-0.0005	-0.19	0.0250	-0.0011	-0.25
BZGXU7		0.0180	0.0009	0.37	0.0250	-0.0011	-0.25
BZHGT3	*	0.0170	-0.0001	-0.03	0.0180	-0.0081	-1.89
CKJ4LK		0.0182	0.0011	0.43	0.0285	0.0025	0.58
CUTJHK		0.0166	-0.0004	-0.17	0.0306	0.0045	1.06
CXCEKC		0.0145	-0.0026	-1.03	0.0213	-0.0047	-1.11
D3FZNZ		0.0179	0.0008	0.32	0.0291	0.0030	0.70
DB92ZJ	*	0.0201	0.0030	1.20	0.0370	0.0110	2.57
DEDQFY		0.0170	-0.0001	-0.04	0.0242	-0.0018	-0.43
E9XPKE		0.0169	-0.0002	-0.08	0.0249	-0.0012	-0.28
EJKNCK		0.0188	0.0018	0.70	0.0297	0.0037	0.86
EVAM3M		0.0119	-0.0052	-2.05	0.0199	-0.0061	-1.44
F46UDF		0.0180	0.0009	0.37	0.0288	0.0027	0.64
GAR9NR		0.0152	-0.0019	-0.74	0.0290	0.0029	0.69
GBMQPT		0.0165	-0.0005	-0.21	0.0239	-0.0022	-0.52
GYQKWV		0.0200	0.0029	1.16	0.0301	0.0040	0.95
JV2VM3		0.0176	0.0005	0.21	0.0270	0.0009	0.22
KZAM7Z		0.0163	-0.0008	-0.32	0.0263	0.0003	0.07
L3M2XD		0.0148	-0.0023	-0.90	0.0232	-0.0028	-0.66
MEMQPZ		0.0191	0.0020	0.80	0.0297	0.0036	0.84
NBD9JF		0.0206	0.0035	1.39	0.0273	0.0013	0.30
NHUUJ8		0.0188	0.0017	0.68	0.0286	0.0025	0.60
R2H9WM		0.0176	0.0005	0.21	0.0274	0.0013	0.31
RDFYNL		0.0202	0.0031	1.25	0.0296	0.0035	0.83
RN73HE		0.0219	0.0048	1.91	0.0295	0.0035	0.81
RT4LLX		0.0211	0.0040	1.58	0.0296	0.0036	0.84
U3KZNQ		0.0161	-0.0009	-0.37	0.0233	-0.0028	-0.64
VTCJKY		0.0222	0.0051	2.03	0.0306	0.0045	1.06
W7DTNY		0.0143	-0.0028	-1.11	0.0248	-0.0013	-0.30
XL8MLB		0.0208	0.0037	1.48	0.0348	0.0087	2.05
XYVJZ3	X	0.0214	0.0044	1.73	0.0179	-0.0082	-1.92
YFFRCQ	X	0.0236	0.0066	2.60	0.00865	-0.0174	-4.08

WebCode	Data Flag	Sample C35 Lab Mean	Sample C35 Diff. from Grand Mean	Sample C35 CPV	Sample C36 Lab Mean	Sample C36 Diff. from Grand Mean	Sample C36 CPV
YQEGEL		0.0169	-0.0002	-0.08	0.0271	0.0010	0.23
YQHZ4A		0.0134	-0.0037	-1.47	0.0188	-0.0073	-1.71
ZKLTWL		0.0148	-0.0023	-0.91	0.0255	-0.0006	-0.14

Summary Statistics

	Sample C35		Sample C36	
Grand Means	0.0171	inches	0.0261	inches
Stnd Dev Btwn Labs	0.0025	inches	0.0043	inches

Samples C35, C36 : Steel

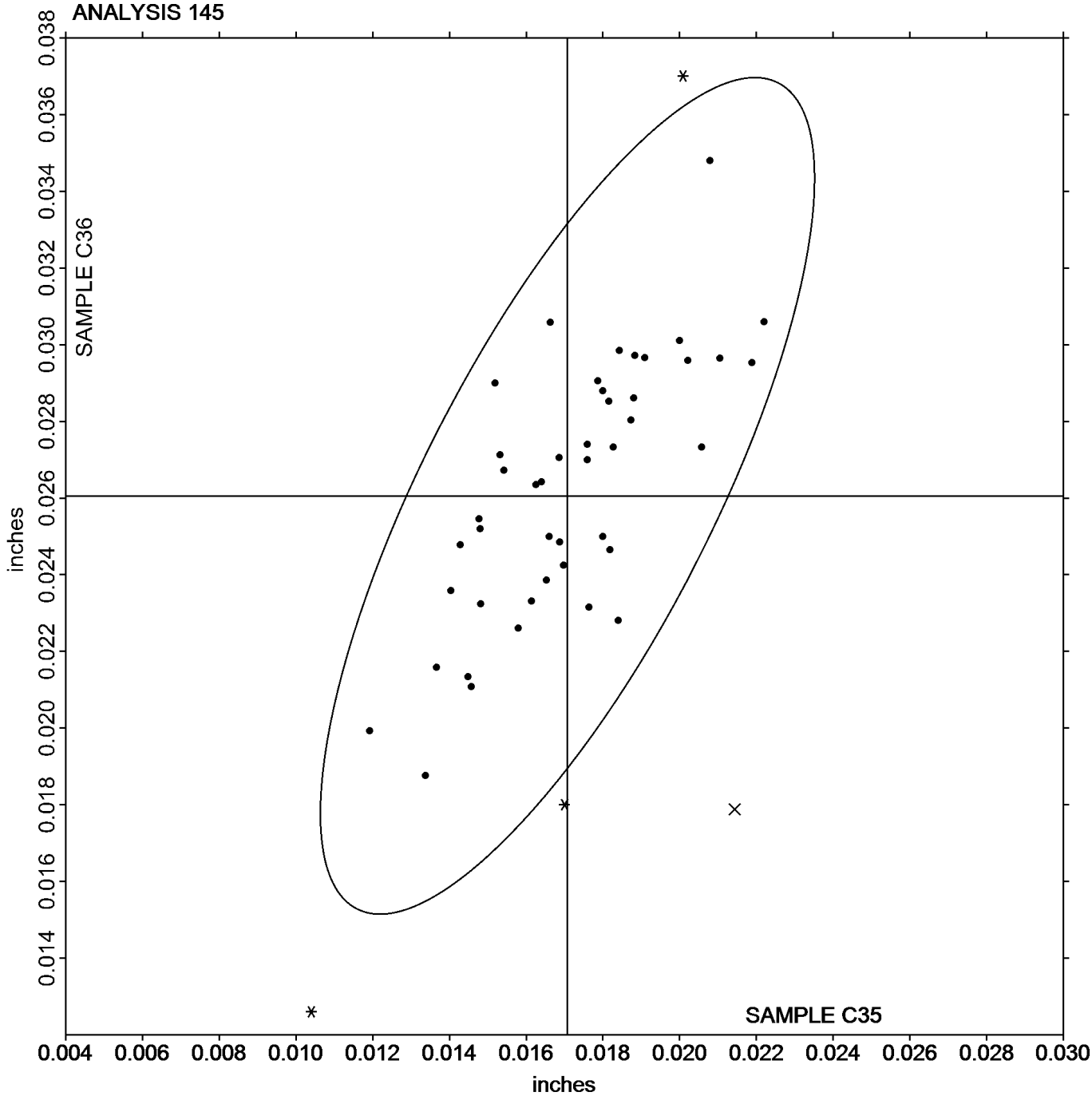
Statistics based on 48 of 50 reporting participants

Comments on Assigned Data Flags for Test #145

XYVJZ3 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample C35.

YFFRCQ (X) - Data for sample C36 are low. Inconsistent within the determinations of both samples.

SAMPLE C35	SAMPLE C36
0.0171 inches	0.0261 inches



		Sample C35			Sample C36		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2LBGU8		0.0163	0.0012	1.04	0.0271	0.0036	1.50
3ZCDQE		0.0136	-0.0015	-1.35	0.0190	-0.0045	-1.90
479GAG		0.0147	-0.0004	-0.40	0.0254	0.0019	0.79
4GVT8F		0.0144	-0.0007	-0.65	0.0222	-0.0013	-0.56
6LWBWR		0.0176	0.0024	2.16	0.0267	0.0032	1.35
744LN6		0.0172	0.0020	1.80	0.0262	0.0027	1.14
78VY2T		0.0163	0.0011	1.02	0.0261	0.0026	1.09
7FD9RB		0.0147	-0.0005	-0.42	0.0249	0.0013	0.57
86PVQH		0.0146	-0.0005	-0.47	0.0266	0.0031	1.30
87GRFB		0.0149	-0.0002	-0.22	0.0247	0.0012	0.51
8VVZHL		0.0169	0.0017	1.54	0.0224	-0.0011	-0.46
8WT2TJ		0.0138	-0.0013	-1.19	0.0232	-0.0003	-0.14
9WP244		0.0146	-0.0005	-0.47	0.0208	-0.0027	-1.15
9WREYC		0.0141	-0.0010	-0.91	0.0219	-0.0017	-0.70
AMKYT4		0.0146	-0.0005	-0.43	0.0253	0.0018	0.74
AZ6NFM		0.0164	0.0013	1.13	0.0264	0.0029	1.21
BDTZF4	*	0.0140	-0.0011	-1.00	0.0172	-0.0063	-2.66
BEZHDY		0.0165	0.0014	1.24	0.0228	-0.0007	-0.30
BRQ27J		0.0150	-0.0001	-0.11	0.0220	-0.0015	-0.64
BZGXU7		0.0154	0.0003	0.26	0.0225	-0.0010	-0.44
BZHGT3	*	0.0148	-0.0003	-0.29	0.0174	-0.0061	-2.58
CKJ4LK		0.0168	0.0017	1.48	0.0270	0.0035	1.47
CUTJHK		0.0159	0.0008	0.69	0.0261	0.0025	1.07
CXCEKC		0.0142	-0.0009	-0.79	0.0195	-0.0040	-1.69
D3FZNZ		0.0146	-0.0005	-0.43	0.0232	-0.0004	-0.16
DB92ZJ		0.0152	0.0001	0.10	0.0256	0.0021	0.89
DEDQFY		0.0146	-0.0005	-0.47	0.0234	-0.0001	-0.05
DWA7U4		0.0164	0.0013	1.13	0.0244	0.0009	0.37
E9XPKE		0.0162	0.0011	0.95	0.0234	-0.0002	-0.06
EJKNCK		0.0136	-0.0015	-1.35	0.0224	-0.0011	-0.47
EVAM3M		0.0150	-0.0001	-0.13	0.0258	0.0023	0.98
F46UDF		0.0150	-0.0001	-0.11	0.0234	-0.0001	-0.05
FK7RJH		0.0147	-0.0004	-0.38	0.0195	-0.0040	-1.69
GAR9NR		0.0130	-0.0021	-1.89	0.0230	-0.0005	-0.22
GBMQPT		0.0156	0.0005	0.45	0.0233	-0.0002	-0.07
JV2VM3		0.0149	-0.0002	-0.20	0.0230	-0.0005	-0.22
KZAM7Z		0.0143	-0.0009	-0.77	0.0241	0.0006	0.26
L3M2XD		0.0134	-0.0017	-1.54	0.0253	0.0017	0.73
LG8FZC		0.0158	0.0006	0.56	0.0236	0.0001	0.05
M7MF9A		0.0139	-0.0012	-1.05	0.0209	-0.0026	-1.10
MEMQPZ		0.0148	-0.0003	-0.29	0.0240	0.0005	0.20
NBD9JF		0.0153	0.0001	0.13	0.0241	0.0006	0.24
NHUUJ8		0.0160	0.0009	0.77	0.0250	0.0015	0.62
R2H9WM		0.0168	0.0017	1.48	0.0260	0.0025	1.04
RAQY3B		0.0151	0.0000	-0.01	0.0213	-0.0022	-0.92
RDFYNL		0.0160	0.0009	0.76	0.0258	0.0023	0.96
RT4LLX		0.0153	0.0001	0.12	0.0242	0.0007	0.28

WebCode	Data Flag	Sample C35 Lab Mean	Sample C35 Diff. from Grand Mean	Sample C35 CPV	Sample C36 Lab Mean	Sample C36 Diff. from Grand Mean	Sample C36 CPV
TEFPVY		0.0143	-0.0009	-0.78	0.0250	0.0015	0.64
U3KZNQ		0.0161	0.0009	0.83	0.0224	-0.0011	-0.46
VTCJKY		0.0144	-0.0007	-0.65	0.0210	-0.0025	-1.06
XJU844		0.0151	-0.0001	-0.05	0.0202	-0.0033	-1.38
XL8MLB		0.0132	-0.0019	-1.71	0.0252	0.0017	0.71
XXY4M7		0.0143	-0.0008	-0.71	0.0252	0.0017	0.71
XYVJZ3	*	0.0179	0.0028	2.49	0.0220	-0.0015	-0.63
Y8F89A		0.0168	0.0017	1.48	0.0252	0.0017	0.71
YQEGEL		0.0141	-0.0010	-0.92	0.0222	-0.0013	-0.55
YQHZ4A		0.0140	-0.0011	-1.00	0.0210	-0.0025	-1.06
ZKLTWL		0.0146	-0.0005	-0.49	0.0265	0.0030	1.27

Summary Statistics

	Sample C35		Sample C36	
Grand Means	0.0151	inches	0.0235	inches
Stnd Dev Btwn Labs	0.0011	inches	0.0024	inches

Samples C35, C36 : Steel

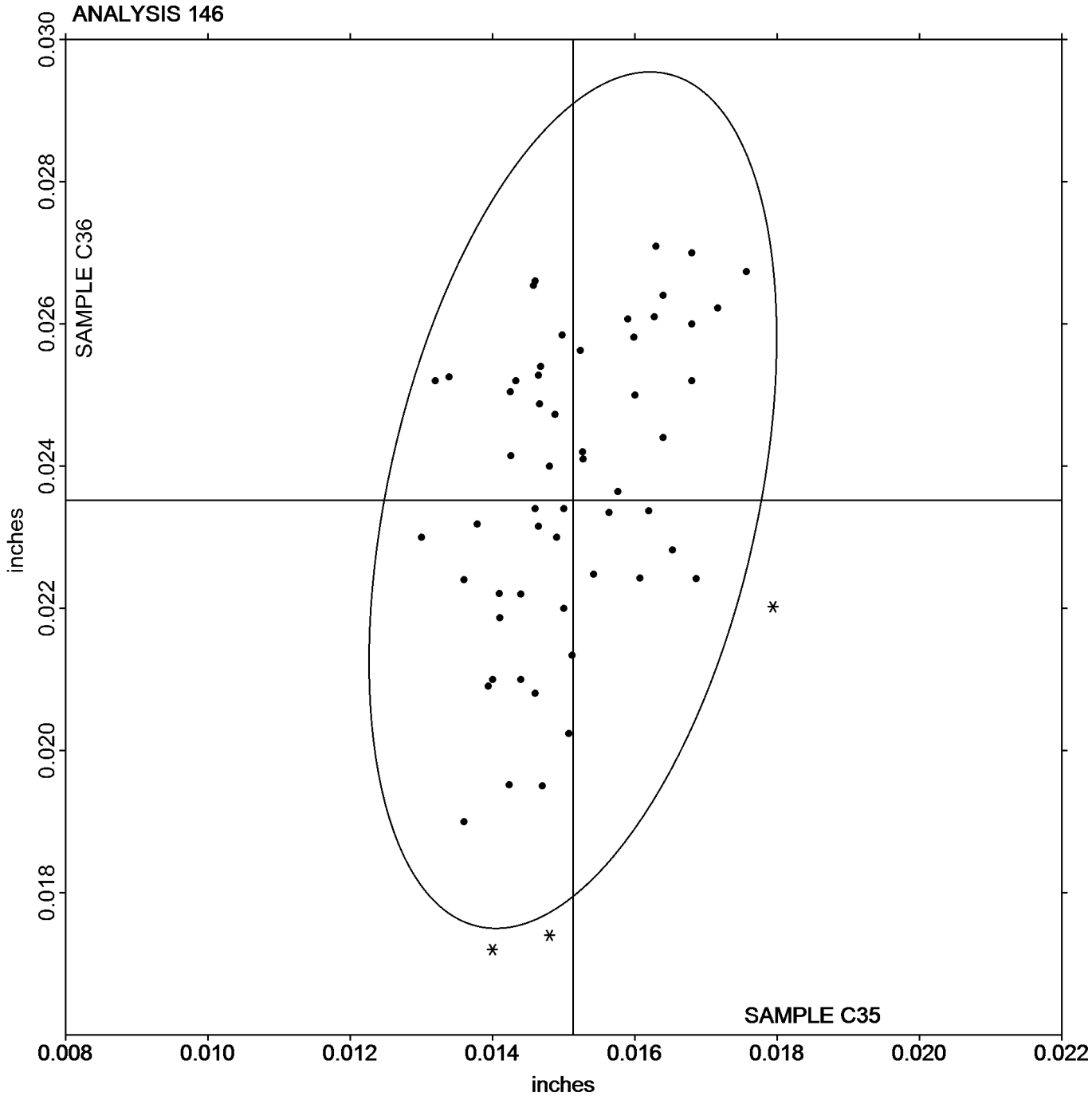
Statistics based on 58 of 58 reporting participants

Analysis Notes:

YQEGEL - Laboratory reported their results using incorrect units. Data were corrected by CTS.

SAMPLE C35
0.0151 inches

SAMPLE C36
0.0235 inches



		Sample Y35			Sample Y36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	
263L4T		5.30	-0.18	-0.34	10.16	0.27	0.31	Heyn Linear Intercept
299T3D		5.80	0.32	0.63	10.60	0.71	0.82	N/A
3ZCDQE		5.00	-0.48	-0.93	10.50	0.61	0.70	Comparison Method
4NRBZ7		5.40	-0.08	-0.15	9.50	-0.39	-0.45	Comparison Method
69UPU3		5.60	0.12	0.24	10.08	0.19	0.22	Heyn Linear Intercept
6M7A3U		6.40	0.92	1.80	8.90	-0.99	-1.14	Comparison Method
78VY2T		6.00	0.52	1.02	9.00	-0.89	-1.03	Comparison Method
7BRVFL		6.30	0.82	1.60	8.80	-1.09	-1.26	Comparison Method
7QPX67		5.20	-0.28	-0.54	9.00	-0.89	-1.03	Comparison Method
8VVZHL		5.00	-0.48	-0.93	10.00	0.11	0.13	Comparison Method
9QJ3Y6	*	6.80	1.32	2.58	9.30	-0.59	-0.68	Comparison Method
A39JYQ		5.54	0.06	0.12	10.28	0.39	0.45	Abrams Three-Circle
BNBKYZ		5.00	-0.48	-0.93	8.00	-1.89	-2.18	Comparison Method
BYAHKE		5.50	0.02	0.04	10.40	0.51	0.59	N/A
CHFA38		5.20	-0.28	-0.54	10.50	0.61	0.70	Comparison Method
DDH9DX	*	5.80	0.32	0.63	12.00	2.11	2.43	Comparison Method
DRKGH8		5.70	0.22	0.43	10.00	0.11	0.13	Comparison Method
E9XPKE		5.11	-0.37	-0.72	9.37	-0.52	-0.60	General Intercept
EZ84FG		5.22	-0.26	-0.50	10.08	0.19	0.22	N/A
GFRQMC		5.40	-0.08	-0.15	10.70	0.81	0.93	Comparison Method
GYQKWV		5.20	-0.28	-0.54	10.00	0.11	0.13	Comparison Method
HFTT39		5.81	0.34	0.66	9.85	-0.04	-0.05	Automatic Image Analysis
JKGTWU		5.80	0.32	0.63	9.40	-0.49	-0.57	Comparison Method
KVFQH9	X	7.20	1.72	3.35	4.90	-4.99	-5.76	Comparison Method
L3M2XD	*	5.80	0.32	0.63	12.08	2.19	2.52	Heyn Linear Intercept
LG8FZC		5.72	0.24	0.47	10.12	0.23	0.27	Abrams Three-Circle
MBJ24H		5.00	-0.48	-0.93	9.20	-0.69	-0.80	Comparison Method
MEMQPZ		5.88	0.40	0.78	9.94	0.05	0.06	Automatic Image Analysis
N6RBUT		4.80	-0.68	-1.32	10.30	0.41	0.47	Comparison Method
NBD9JF		4.40	-1.08	-2.10	10.00	0.11	0.13	Comparison Method
QDTHMX		4.72	-0.76	-1.47	11.77	1.88	2.17	Automatic Image Analysis
QY2CZX		4.50	-0.98	-1.90	9.70	-0.19	-0.22	Comparison Method
R2H9WM		5.40	-0.08	-0.15	9.90	0.01	0.01	Comparison Method
RN73HE		5.90	0.42	0.82	10.00	0.11	0.13	Comparison Method
T8ZXU2		5.53	0.06	0.11	9.81	-0.09	-0.10	Abrams Three-Circle
TWHG2V		5.60	0.12	0.24	9.60	-0.29	-0.34	Comparison Method
UTQQ6V		5.40	-0.08	-0.15	9.70	-0.19	-0.22	Comparison Method
XT73NC		6.30	0.82	1.60	9.20	-0.69	-0.80	Comparison Method
XXFF7B		5.57	0.10	0.18	10.02	0.13	0.15	Automatic Image Analysis
YQEGEL		5.00	-0.48	-0.93	8.00	-1.89	-2.18	Comparison Method

Summary Statistics

	Sample Y35		Sample Y36	
Grand Means	5.48	ASTM, G	9.89	ASTM, G
Stnd Dev Btwn Labs	0.51	ASTM, G	0.87	ASTM, G

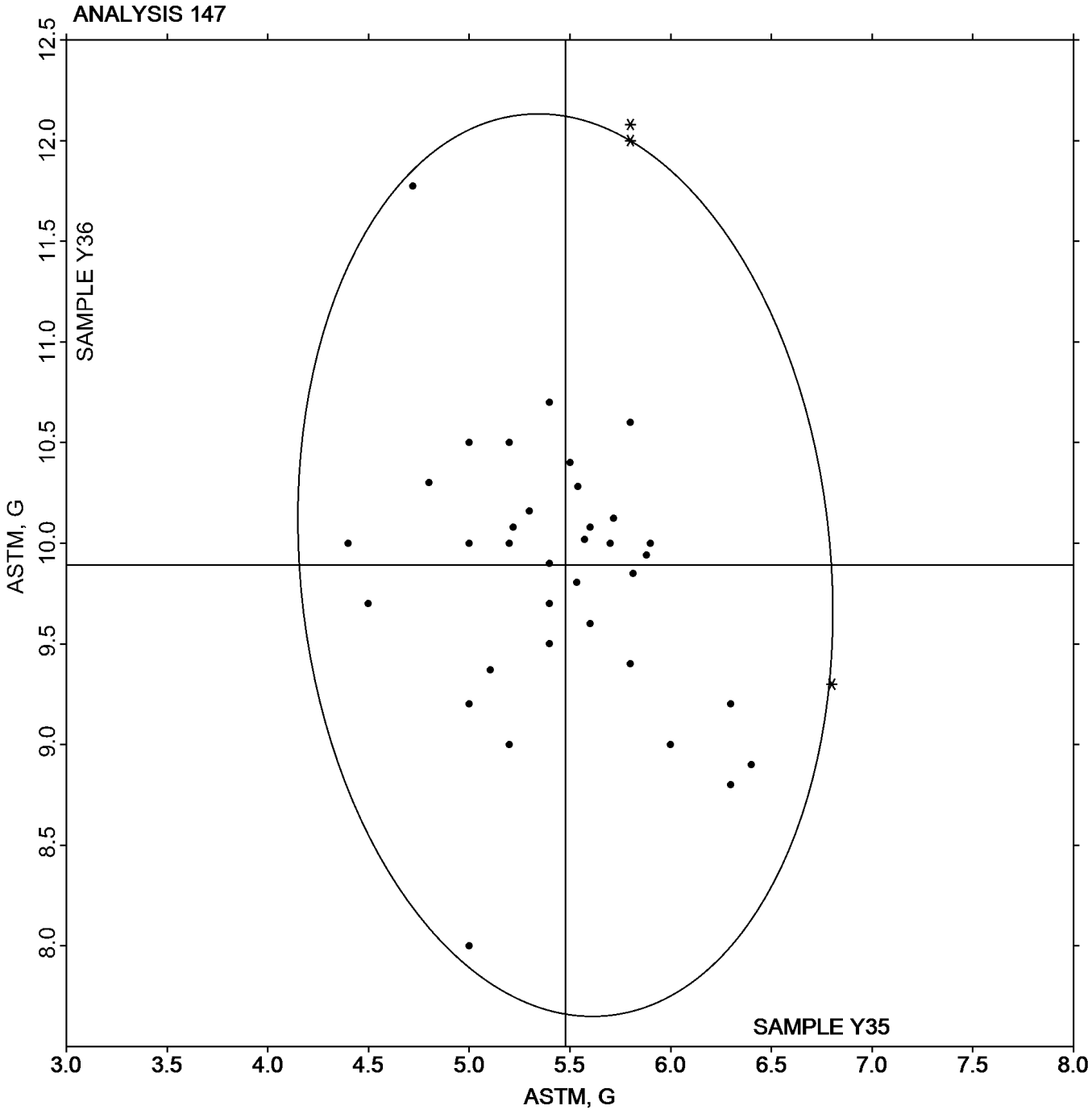
Samples Y35, Y36 : AISI 316LVM, AISI 304

Statistics based on 39 of 40 reporting participants

Comments on Assigned Data Flags for Test #147

KVFQH9 (X) - Data for sample Y35 are high and data for sample Y36 are low.

SAMPLE Y35	SAMPLE Y36
5.48 ASTM, G	9.89 ASTM, G



Fasteners and Metals Interlaboratory Testing Program

Analysis 150

Chemical Analysis Element #1: Nickel-based Alloy - Percent CHROMIUM (Cr)

Cycle 114
2nd Qtr 2016

		Sample J35			Sample J36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
4Q46NJ		21.08	0.01	0.05	22.12	0.17	0.76	OE
64HQKH		20.93	-0.14	-0.51	21.83	-0.12	-0.52	GD
6PMFU6		21.06	-0.01	-0.05	21.91	-0.04	-0.16	WD
7FD9RB		20.50	-0.57	-2.10	21.78	-0.17	-0.75	WD
7K3W2M		20.91	-0.16	-0.59	21.81	-0.14	-0.63	OE
8C7CHR	*	20.32	-0.75	-2.80	21.74	-0.21	-0.96	OE
CJNKJH		21.24	0.17	0.65	22.12	0.17	0.78	OE
DNFX9D		20.73	-0.34	-1.25	21.60	-0.35	-1.57	OE
EJKNCK		20.99	-0.08	-0.29	21.77	-0.18	-0.79	OE
EZ84FG	X	22.74	1.67	6.21	23.65	1.70	7.60	WD
F3RBGP		21.11	0.04	0.15	21.96	0.01	0.04	XR
FQX2UF		21.17	0.10	0.39	21.94	-0.01	-0.03	OE
G4JTVV		21.14	0.07	0.26	21.74	-0.21	-0.96	VO
JFAXL8		21.47	0.40	1.50	21.94	-0.01	-0.03	ED
JMPQNQ		21.34	0.27	0.99	22.20	0.25	1.12	IC
JZVRCT		21.07	0.00	0.00	22.06	0.11	0.51	IC
L3M2XD		20.67	-0.40	-1.50	21.40	-0.55	-2.47	GD
MEMQPZ		21.22	0.15	0.56	22.01	0.06	0.28	OE
N2BR9D		21.00	-0.07	-0.25	21.88	-0.07	-0.30	WD
NG9WM2		21.11	0.04	0.15	22.18	0.23	1.05	OE
NHB2RA		21.31	0.24	0.91	22.22	0.27	1.23	OE
PPCDM7		20.97	-0.10	-0.38	21.80	-0.15	-0.66	IC
QY2CZX		21.21	0.14	0.51	22.09	0.14	0.64	WD
R2H9WM		21.36	0.30	1.10	21.82	-0.13	-0.57	DR
RAQY3B		21.58	0.51	1.89	22.52	0.57	2.57	OE
T8ZXU2		21.18	0.11	0.40	22.17	0.22	0.99	VO
TXFK2X		21.20	0.13	0.47	22.05	0.10	0.43	OE
WRU3RH		21.08	0.01	0.03	21.91	-0.04	-0.16	WD
YTHA9K		21.17	0.10	0.36	22.13	0.18	0.82	OE
ZGLKRB		21.19	0.12	0.45	22.06	0.11	0.51	XX
ZTJBPC		20.77	-0.30	-1.11	21.69	-0.26	-1.18	OE

Summary Statistics

	Sample J35		Sample J36	
Grand Means	21.07	Percent	21.95	Percent
Stnd Dev Btwn Labs	0.27	Percent	0.22	Percent

Samples J35, J36 : Alloy 625, two different heats

Statistics based on 30 of 31 reporting participants

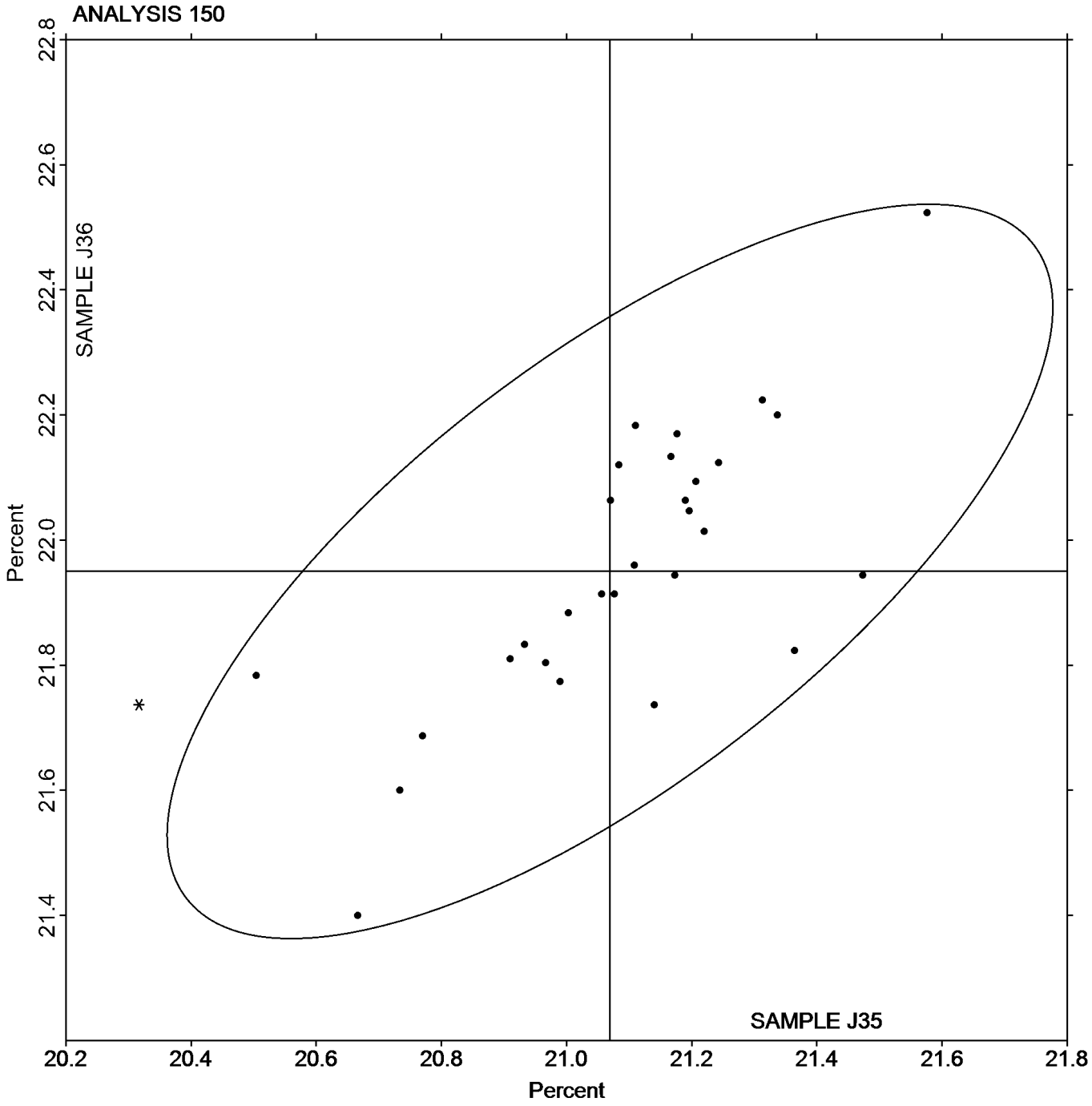
Key to Method Codes Reported by Participants

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 #150

EZ84FG (X) - Data for both samples are high.

SAMPLE J35	SAMPLE J36
21.07 Percent	21.95 Percent



WebCode	Data Flag	Sample J35 Lab Mean	Sample J35 Diff. from Grand Mean	Sample J35 CPV	Sample J36 Lab Mean	Sample J36 Diff. from Grand Mean	Sample J36 CPV	Method
4Q46NJ		0.1810	0.0021	0.27	0.1080	0.0006	0.09	OE
64HQKH		0.1667	-0.0122	-1.59	0.0990	-0.0084	-1.21	GD
6PMFU6		0.1760	-0.0029	-0.38	0.1090	0.0016	0.23	WD
7FD9RB		0.1622	-0.0167	-2.18	0.0901	-0.0173	-2.50	WD
7K3W2M		0.1820	0.0031	0.40	0.1040	-0.0034	-0.49	OE
8C7CHR		0.1667	-0.0122	-1.59	0.0982	-0.0092	-1.32	OE
CJNKJH		0.1860	0.0071	0.92	0.1153	0.0079	1.14	OE
DNFX9D		0.1850	0.0061	0.79	0.1113	0.0039	0.57	OE
EJKNCK		0.1870	0.0081	1.05	0.1123	0.0049	0.71	OE
EZ84FG		0.1960	0.0171	2.23	0.1180	0.0106	1.53	WD
F3RBGP		0.1840	0.0051	0.66	0.1120	0.0046	0.66	OE
FQX2UF		0.1700	-0.0089	-1.16	0.1100	0.0026	0.37	OE
G4JTVV		0.1817	0.0028	0.36	0.1117	0.0043	0.61	AA
JMPQNQ		0.1747	-0.0042	-0.55	0.1033	-0.0041	-0.59	IC
JZVRCT		0.1747	-0.0042	-0.55	0.1033	-0.0041	-0.59	IC
L3M2XD		0.1827	0.0038	0.49	0.1057	-0.0017	-0.25	GD
MEMQPZ		0.1783	-0.0006	-0.08	0.1063	-0.0011	-0.15	OE
N2BR9D		0.1837	0.0048	0.62	0.1103	0.0029	0.42	WD
NG9WM2		0.1770	-0.0019	-0.25	0.1067	-0.0007	-0.11	OE
NHB2RA		0.1800	0.0011	0.14	0.1100	0.0026	0.37	OE
PPCDM7		0.1843	0.0054	0.71	0.1120	0.0046	0.66	IC
QY2CZX		0.1680	-0.0109	-1.42	0.0993	-0.0081	-1.16	WD
R2H9WM		0.1840	0.0051	0.66	0.1017	-0.0057	-0.83	DR
RAQY3B		0.1817	0.0028	0.36	0.1097	0.0023	0.33	OE
TXFK2X		0.1833	0.0044	0.58	0.1153	0.0079	1.14	OE
WRU3RH	*	0.1870	0.0081	1.05	0.1230	0.0156	2.25	WD
YTHA9K		0.1700	-0.0089	-1.16	0.1000	-0.0074	-1.07	OE
ZGLKRB		0.1760	-0.0029	-0.38	0.1017	-0.0057	-0.83	XX
ZTJBPC	X	0.1753	-0.0036	-0.47	0.1347	0.0273	3.93	OE

Summary Statistics

	Sample J35		Sample J36	
Grand Means	0.1789	Percent	0.1074	Percent
Stnd Dev Btwn Labs	0.0077	Percent	0.0069	Percent

Samples J35, J36 : Alloy 625, two different heats

Statistics based on 28 of 29 reporting participants

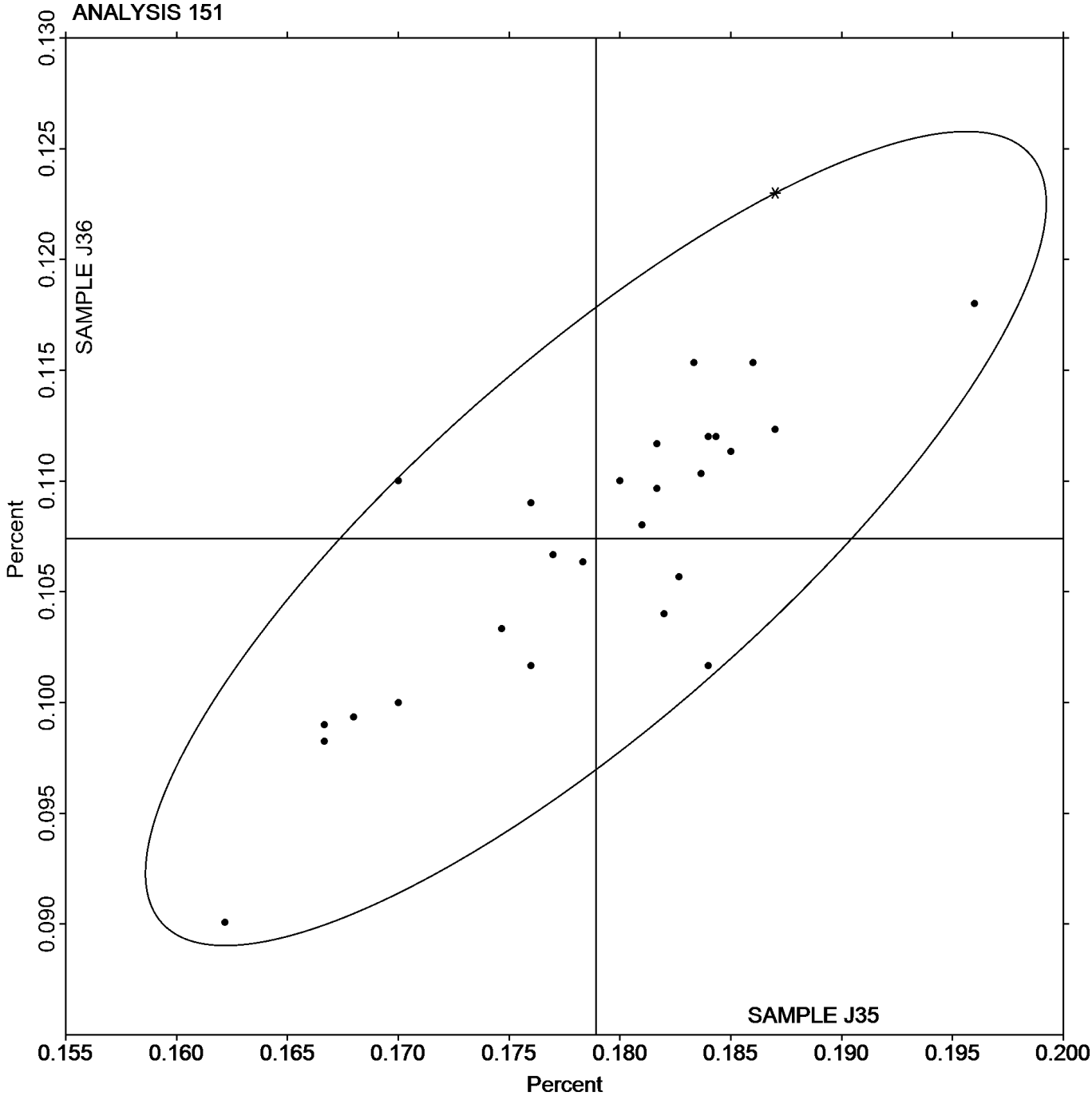
Key to Method Codes Reported by Participants

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

Comments on Assigned Data Flags for Test #151

ZTJBPC (X) - Data for sample J36 are high.

SAMPLE J35	SAMPLE J36
0.1789 Percent	0.1074 Percent



		Sample J35			Sample J36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
4Q46NJ		4.073	0.000	0.00	4.083	0.016	0.12	OE
64HQKH		4.177	0.103	0.82	4.227	0.159	1.27	GD
6PMFU6		4.098	0.024	0.19	4.078	0.010	0.08	WD
7FD9RB		4.141	0.068	0.54	4.126	0.059	0.47	WD
7K3W2M		4.130	0.056	0.45	4.050	-0.018	-0.14	OE
8C7CHR	X	0.6633	-3.410	-27.16	0.6553	-3.412	-27.16	OE
CJNKJH		4.100	0.026	0.21	4.090	0.022	0.18	OE
DNFX9D		4.090	0.016	0.13	4.070	0.002	0.02	OE
EJKNCK		4.056	-0.017	-0.14	4.091	0.023	0.19	OE
F3RBGP		4.007	-0.067	-0.53	3.997	-0.070	-0.56	XR
FQX2UF		4.030	-0.044	-0.35	4.090	0.022	0.18	OE
G4JTVV		4.037	-0.037	-0.29	3.993	-0.074	-0.59	DC
JFAXL8		4.161	0.088	0.70	4.063	-0.005	-0.04	ED
JMPQNQ		4.087	0.013	0.10	4.057	-0.011	-0.09	IC
JZVRCT		4.105	0.032	0.25	4.106	0.039	0.31	IC
L3M2XD	*	4.470	0.396	3.16	4.457	0.389	3.10	GD
MEMQPZ		4.180	0.106	0.85	4.175	0.108	0.86	OE
N2BR9D		4.029	-0.044	-0.35	3.989	-0.078	-0.62	WD
NG9WM2		3.985	-0.088	-0.70	3.960	-0.107	-0.85	OE
NHB2RA	*	3.680	-0.394	-3.13	3.710	-0.358	-2.85	OE
PPCDM7		4.038	-0.036	-0.29	4.089	0.021	0.17	IC
QY2CZX		3.885	-0.189	-1.50	3.867	-0.200	-1.59	WD
R2H9WM		4.009	-0.064	-0.51	4.048	-0.020	-0.16	DR
RAQY3B		4.123	0.050	0.40	4.153	0.085	0.68	OE
T8ZXU2	M	3.948	-0.125	-1.00	No Data Reported			IC
TXFK2X		4.045	-0.029	-0.23	4.022	-0.045	-0.36	OE
WRU3RH		4.063	-0.010	-0.08	4.040	-0.028	-0.22	WD
YTHA9K		4.167	0.093	0.74	4.200	0.132	1.05	OE
ZGLKRB		4.023	-0.050	-0.40	3.990	-0.078	-0.62	XX
ZTJBPC		4.070	-0.004	-0.03	4.073	0.006	0.04	OE

Summary Statistics

	Sample J35		Sample J36	
Grand Means	4.074	Percent	4.068	Percent
Stnd Dev Btwn Labs	0.126	Percent	0.126	Percent

Samples J35, J36 : Alloy 625, two different heats

Statistics based on 28 of 30 reporting participants

Key to Method Codes Reported by Participants

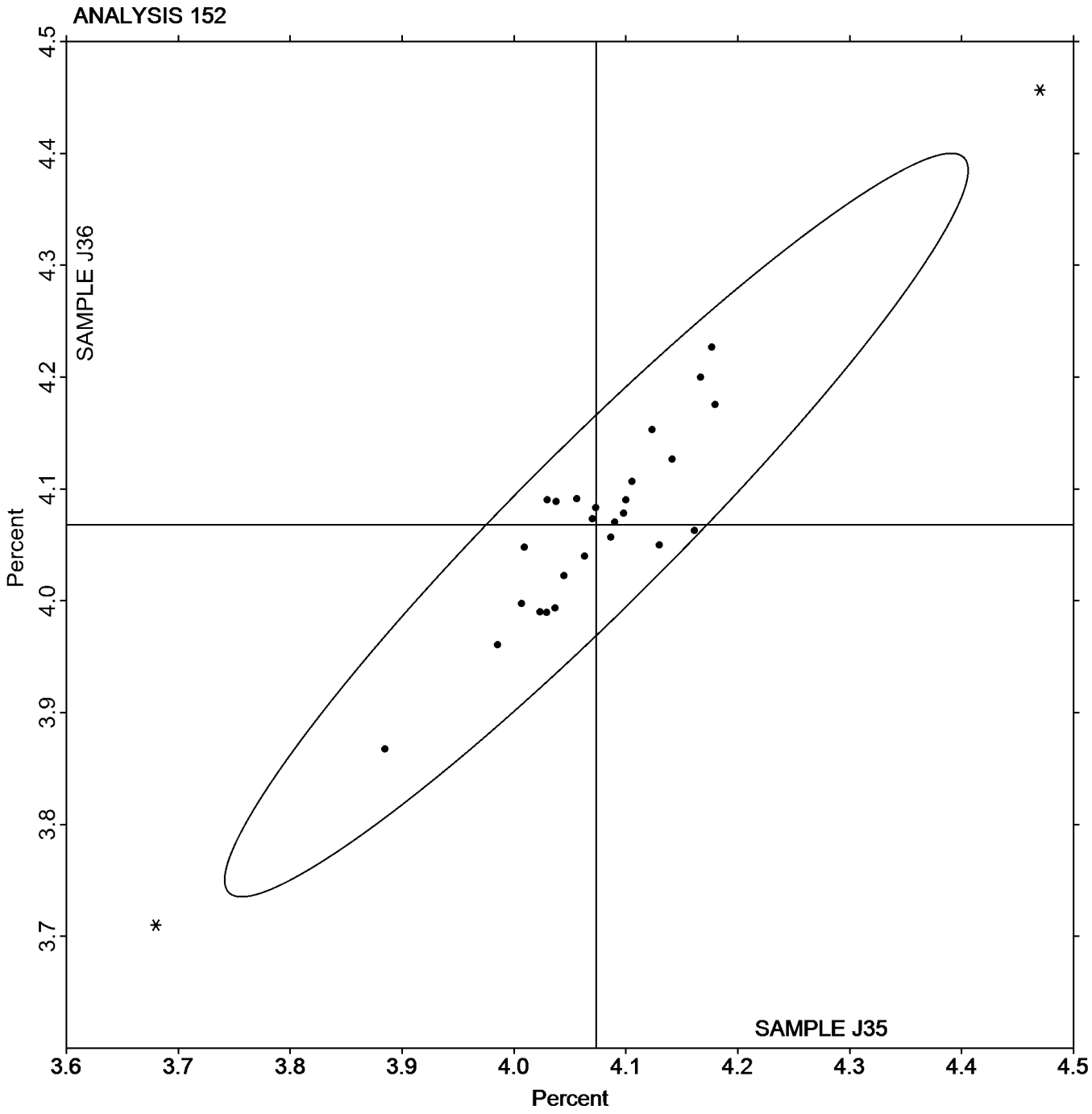
DC	Spectrometry - DC Plasma (DCP)	DR	Spectrometry - Direct Reading OE (DROES)
ED	X-Ray Fluorescence - Energy Dispersive (EDX)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (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 #152

8C7CHR (X) - Data for both samples are low. Possible Systematic Error.

T8ZXU2 (M) - Participant did not submit data for sample J36.

SAMPLE J35	SAMPLE J36
4.074 Percent	4.068 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 153

Chemical Analysis Element #4: Nickel-based Alloy- Percent MOLYBDENUM (Mo)

		Sample J35			Sample J36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
4Q46NJ		8.520	0.012	0.09	8.677	-0.027	-0.24	OE
64HQKH	X	8.113	-0.395	-3.03	8.620	-0.084	-0.73	GD
6PMFU6		8.493	-0.015	-0.11	8.687	-0.017	-0.15	WD
7FD9RB		8.559	0.050	0.39	8.718	0.014	0.13	WD
7K3W2M		8.390	-0.118	-0.91	8.650	-0.054	-0.47	OE
8C7CHR	*	8.157	-0.352	-2.70	8.473	-0.231	-2.01	OE
CJNKJH		8.463	-0.045	-0.35	8.713	0.009	0.08	OE
DNFX9D		8.483	-0.025	-0.19	8.650	-0.054	-0.47	OE
EJKNCK		8.483	-0.025	-0.19	8.687	-0.017	-0.15	OE
EZ84FG		8.646	0.137	1.06	8.842	0.138	1.20	WD
F3RBGP		8.518	0.009	0.07	8.720	0.016	0.14	XR
FQX2UF		8.433	-0.075	-0.58	8.683	-0.021	-0.18	OE
G4JTVV		8.497	-0.012	-0.09	8.737	0.033	0.28	XR
JFAXL8		8.528	0.020	0.15	8.776	0.072	0.62	ED
JMPQNQ		8.577	0.068	0.53	8.703	-0.001	-0.01	IC
JZVRCT		8.377	-0.132	-1.01	8.507	-0.197	-1.71	IC
L3M2XD	X	8.890	0.382	2.93	9.190	0.486	4.23	GD
MEMQPZ		8.608	0.100	0.77	8.889	0.185	1.61	OE
N2BR9D		8.518	0.010	0.07	8.732	0.028	0.24	WD
NG9WM2	*	8.893	0.384	2.95	8.975	0.271	2.36	OE
NHB2RA		8.370	-0.138	-1.06	8.537	-0.167	-1.45	OE
PPCDM7		8.500	-0.009	-0.07	8.683	-0.021	-0.18	IC
QY2CZX		8.658	0.149	1.15	8.871	0.167	1.45	WD
R2H9WM		8.571	0.063	0.48	8.794	0.090	0.78	DR
RAQY3B		8.637	0.129	0.99	8.887	0.183	1.59	OE
T8ZXU2	*	8.665	0.157	1.20	8.693	-0.011	-0.10	IC
TXFK2X		8.457	-0.052	-0.40	8.580	-0.124	-1.08	OE
WRU3RH		8.467	-0.042	-0.32	8.660	-0.044	-0.38	WD
YTHA9K		8.400	-0.108	-0.83	8.600	-0.104	-0.90	OE
ZGLKRB		8.517	0.008	0.06	8.687	-0.017	-0.15	XX
ZTJBPC		8.357	-0.152	-1.16	8.603	-0.101	-0.88	OE

Summary Statistics

	Sample J35		Sample J36	
Grand Means	8.508	Percent	8.704	Percent
Stnd Dev Btwn Labs	0.130	Percent	0.115	Percent

Samples J35, J36 : Alloy 625, two different heats

Statistics based on 29 of 31 reporting participants

Key to Method Codes Reported by Participants

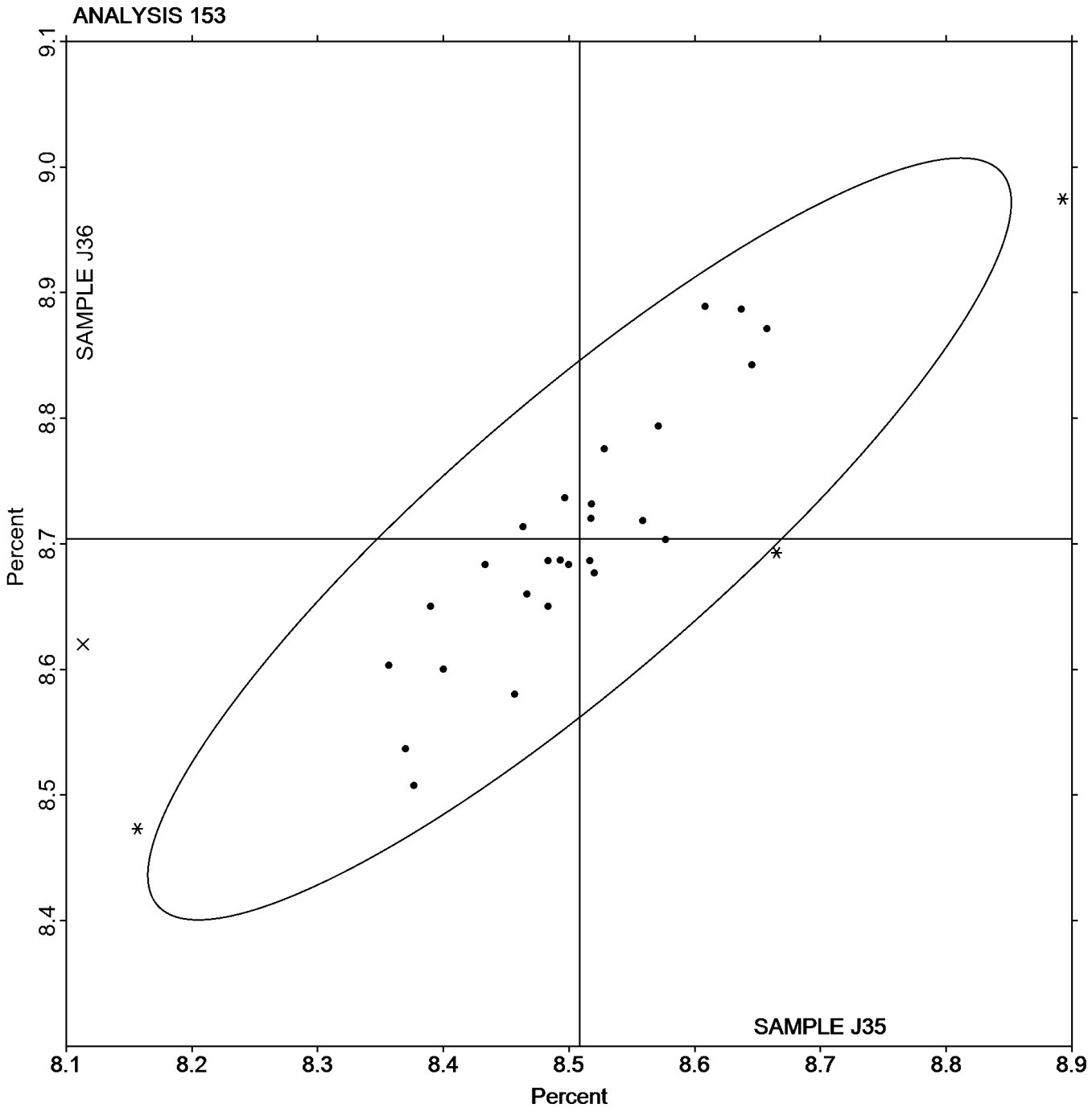
DR	Spectrometry - Direct Reading OE (DROES)	ED	X-Ray Fluorescence - Energy Dispersive (EDX)
GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED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

Comments on Assigned Data Flags for Test #153

64HQKH (X) - Data for sample J35 are low.

L3M2XD (X) - Data for both samples are high. Possible Systematic Error.

SAMPLE J35	SAMPLE J36
8.508 Percent	8.704 Percent



		Sample J35			Sample J36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
4Q46NJ		0.1420	-0.0028	-0.26	0.2997	-0.0037	-0.17	OE
64HQKH		0.1400	-0.0048	-0.45	0.3057	0.0023	0.10	GD
6PMFU6		0.1397	-0.0051	-0.48	0.2990	-0.0044	-0.20	WD
7FD9RB		0.1200	-0.0248	-2.34	0.2537	-0.0497	-2.26	WD
7K3W2M		0.1380	-0.0068	-0.64	0.3120	0.0086	0.39	OE
8C7CHR	*	0.1683	0.0236	2.22	0.3650	0.0616	2.80	OE
CJNKJH		0.1460	0.0012	0.11	0.2867	-0.0167	-0.76	OE
DNFX9D		0.1630	0.0182	1.72	0.3290	0.0256	1.16	OE
EJKNCK		0.1420	-0.0028	-0.26	0.3143	0.0109	0.50	OE
F3RBGP		0.1510	0.0062	0.59	0.3023	-0.0011	-0.05	OE
FQX2UF	X	0.1567	0.0119	1.12	0.2500	-0.0534	-2.43	OE
G4JTVV		0.1363	-0.0084	-0.80	0.2807	-0.0227	-1.03	XR
JMPQNQ	*	0.1577	0.0129	1.22	0.2880	-0.0154	-0.70	IC
JZVRCT		0.1470	0.0022	0.21	0.3130	0.0096	0.44	IC
L3M2XD		0.1353	-0.0094	-0.89	0.3060	0.0026	0.12	GD
MEMQPZ		0.1337	-0.0111	-1.05	0.2583	-0.0451	-2.05	OE
N2BR9D		0.1443	-0.0004	-0.04	0.3013	-0.0021	-0.09	WD
NG9WM2		0.1507	0.0059	0.56	0.3183	0.0149	0.68	OE
NHB2RA		0.1467	0.0019	0.18	0.3100	0.0066	0.30	OE
PPCDM7		0.1420	-0.0028	-0.26	0.3143	0.0109	0.50	IC
QY2CZX		0.1540	0.0092	0.87	0.3220	0.0186	0.84	WD
R2H9WM		0.1560	0.0112	1.06	0.2983	-0.0051	-0.23	DR
RAQY3B		0.1267	-0.0181	-1.71	0.2770	-0.0264	-1.20	OE
TXFK2X		0.1527	0.0079	0.74	0.3143	0.0109	0.50	OE
WRU3RH		0.1417	-0.0031	-0.29	0.2953	-0.0081	-0.37	OE
YTHA9K		0.1400	-0.0048	-0.45	0.3100	0.0066	0.30	OE
ZTJBPC		0.1497	0.0049	0.46	0.3143	0.0109	0.50	OE

Summary Statistics

	Sample J35		Sample J36	
Grand Means	0.1448	Percent	0.3034	Percent
Stnd Dev Btwn Labs	0.0106	Percent	0.0220	Percent

Samples J35, J36 : Alloy 625, two different heats

Statistics based on 26 of 27 reporting participants

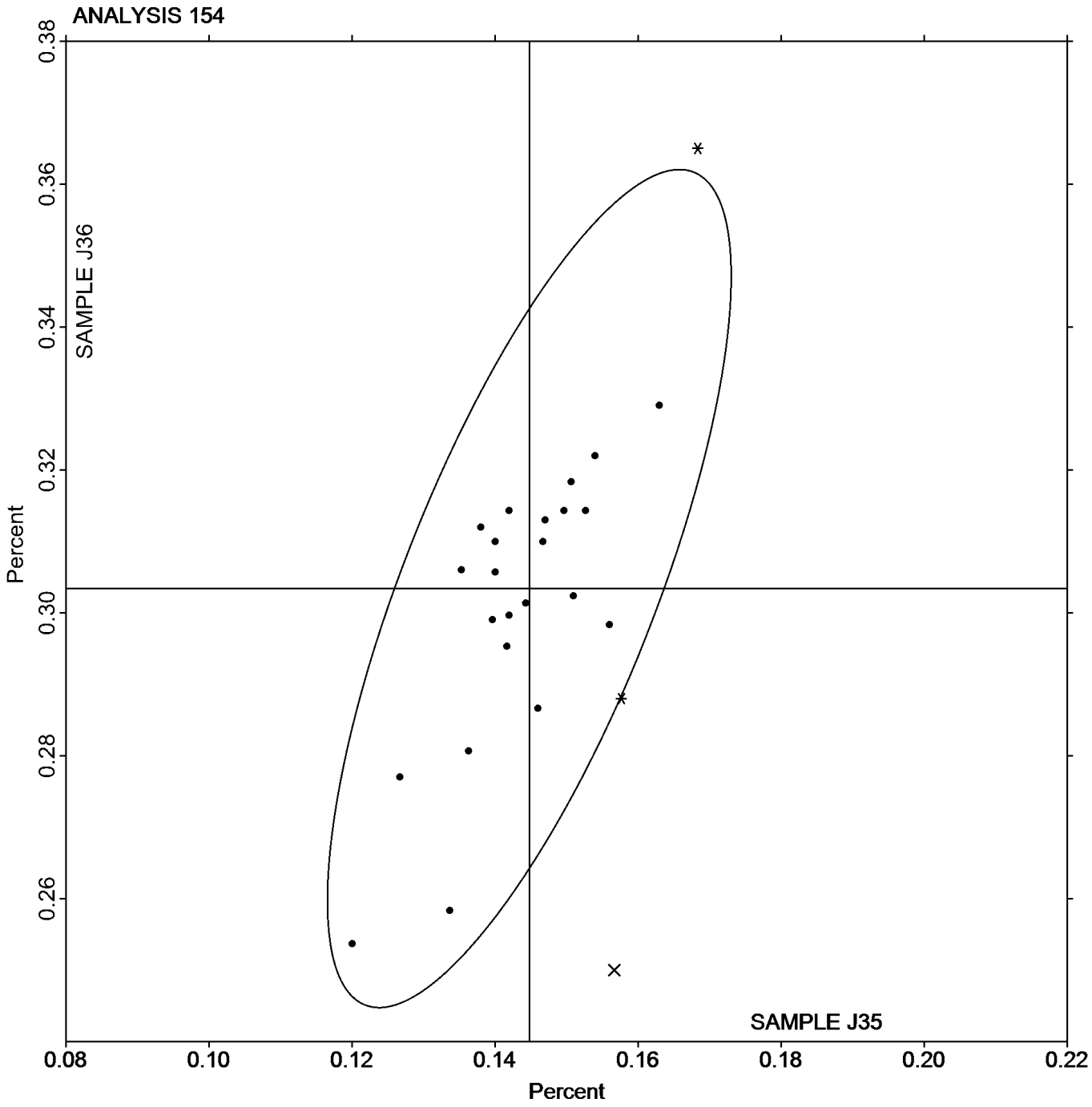
Key to Method Codes Reported by Participants

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

Comments on Assigned Data Flags for Test #154

FQX2UF (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample J35.

SAMPLE J35	SAMPLE J36
0.1448 Percent	0.3034 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 155

Chemical Analysis Element #6: Nickel-based Alloy - Percent SILICON (Si)

Cycle 114
2nd Qtr 2016

WebCode	Data Flag	Sample J35 Lab Mean	Sample J35 Diff. from Grand Mean	Sample J35 CPV	Sample J36 Lab Mean	Sample J36 Diff. from Grand Mean	Sample J36 CPV	Method
4Q46NJ		0.2773	0.0025	0.14	0.1420	-0.0011	-0.07	OE
64HQKH		0.2600	-0.0149	-0.86	0.1400	-0.0031	-0.18	GD
6PMFU6		0.2833	0.0085	0.49	0.1350	-0.0081	-0.48	OE
7FD9RB		0.2817	0.0068	0.39	0.1470	0.0039	0.23	WD
7K3W2M		0.2410	-0.0339	-1.95	0.1310	-0.0121	-0.72	OE
8C7CHR	X	0.4250	0.1501	8.63	0.2150	0.0719	4.26	OE
CJNKJH		0.2873	0.0125	0.72	0.1367	-0.0064	-0.38	OE
DNFX9D		0.2560	-0.0189	-1.09	0.1323	-0.0108	-0.64	OE
EJKNCK		0.2527	-0.0222	-1.28	0.1320	-0.0111	-0.66	OE
EZ84FG		0.2640	-0.0109	-0.63	0.1247	-0.0184	-1.09	XX
F3RBGP		0.3027	0.0278	1.60	0.1377	-0.0054	-0.32	OE
FQX2UF	*	0.3000	0.0251	1.44	0.1900	0.0469	2.78	OE
G4JTVV		0.3013	0.0265	1.52	0.1580	0.0149	0.88	OE
JZVRCT		0.2880	0.0131	0.75	0.1473	0.0042	0.25	IC
L3M2XD		0.2523	-0.0225	-1.30	0.1323	-0.0108	-0.64	GD
MEMQPZ		0.2770	0.0021	0.12	0.1330	-0.0101	-0.60	OE
N2BR9D		0.2697	-0.0052	-0.30	0.1397	-0.0034	-0.20	WD
NG9WM2		0.2597	-0.0152	-0.87	0.1593	0.0162	0.96	OE
NHB2RA		0.2733	-0.0015	-0.09	0.1367	-0.0064	-0.38	OE
PPCDM7		0.2510	-0.0239	-1.37	0.1363	-0.0068	-0.40	IC
QY2CZX	X	0.3577	0.0828	4.76	0.1310	-0.0121	-0.72	WD
R2H9WM		0.2810	0.0061	0.35	0.1457	0.0026	0.15	DR
RAQY3B		0.2863	0.0115	0.66	0.1363	-0.0068	-0.40	OE
TXFK2X		0.2750	0.0001	0.01	0.1453	0.0022	0.13	OE
WRU3RH		0.2777	0.0028	0.16	0.1483	0.0052	0.31	WD
YTHA9K		0.2700	-0.0049	-0.28	0.1200	-0.0231	-1.37	OE
ZGLKRB	X	0.1660	-0.1089	-6.26	0.1120	-0.0311	-1.85	XX
ZTJBPC	*	0.3037	0.0288	1.65	0.1910	0.0479	2.84	XX

Summary Statistics

	Sample J35		Sample J36	
Grand Means	0.2749	Percent	0.1431	Percent
Stnd Dev Btwn Labs	0.0174	Percent	0.0169	Percent

Samples J35, J36 : Alloy 625, two different heats

Statistics based on 25 of 28 reporting participants

Key to Method Codes Reported by Participants

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

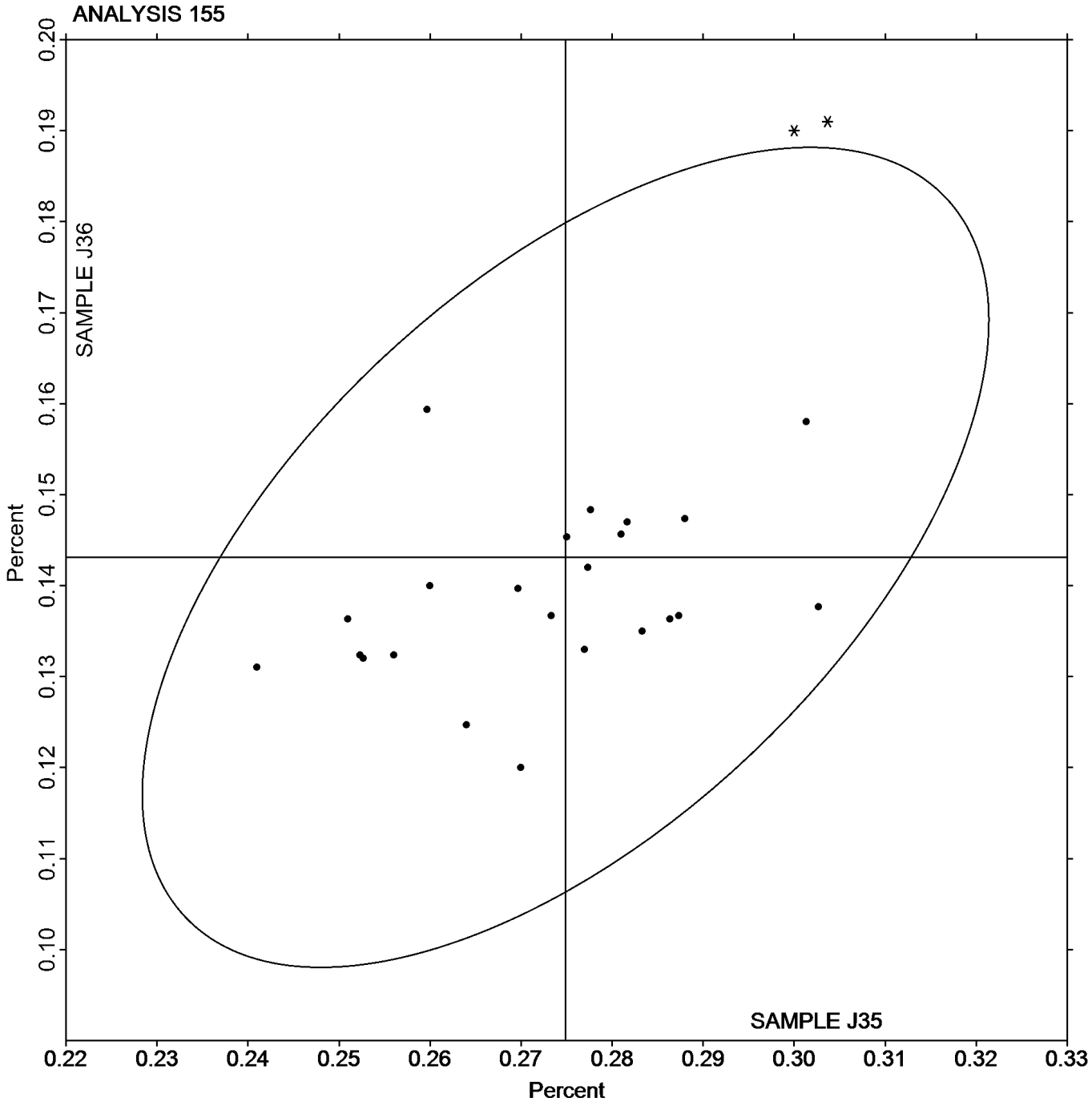
Comments on Assigned Data Flags for Test #155

8C7CHR (X) - Data for both samples are high.

QY2CZX (X) - Data for sample J35 are high. Inconsistent within the determinations of sample J35.

ZGLKRB (X) - Data for sample J35 are low.

SAMPLE J35	SAMPLE J36
0.2749 Percent	0.1431 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 156

Chemical Analysis Element #7: Nickel-based Alloy - Percent NIOBIUM (Nb)

		Sample J35			Sample J36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
4Q46NJ		3.547	0.063	0.56	3.547	0.012	0.12	OE
64HQKH		3.473	-0.010	-0.09	3.520	-0.014	-0.13	GD
6PMFU6		3.465	-0.018	-0.17	3.510	-0.024	-0.23	WD
7FD9RB		3.471	-0.012	-0.11	3.501	-0.033	-0.31	WD
7K3W2M		3.280	-0.203	-1.82	3.390	-0.144	-1.37	OE
CJNKJH		3.483	0.000	0.00	3.510	-0.024	-0.23	OE
DNFX9D		3.317	-0.167	-1.49	3.410	-0.124	-1.18	OE
EJKNCK		3.416	-0.067	-0.60	3.485	-0.049	-0.46	OE
EZ84FG		3.483	-0.001	-0.01	3.480	-0.054	-0.51	WD
F3RBGP		3.482	-0.001	-0.01	3.508	-0.027	-0.25	XR
FQX2UF		3.400	-0.083	-0.75	3.503	-0.031	-0.29	OE
G4JTVV		3.473	-0.010	-0.09	3.520	-0.014	-0.13	XR
JFAXL8		3.432	-0.051	-0.46	3.502	-0.033	-0.31	ED
JMPQNQ		3.413	-0.070	-0.63	3.420	-0.114	-1.09	IC
JZVRCT		3.473	-0.010	-0.09	3.521	-0.014	-0.13	IC
L3M2XD		3.570	0.087	0.77	3.670	0.136	1.29	GD
MEMQPZ		3.365	-0.118	-1.06	3.387	-0.147	-1.40	OE
N2BR9D		3.481	-0.002	-0.02	3.493	-0.042	-0.39	WD
NG9WM2		3.676	0.193	1.72	3.738	0.204	1.94	OE
NHB2RA	*	3.790	0.307	2.74	3.840	0.306	2.91	OE
PPCDM7		3.402	-0.081	-0.73	3.484	-0.051	-0.48	IC
QY2CZX		3.364	-0.119	-1.06	3.418	-0.116	-1.10	WD
R2H9WM		3.494	0.011	0.10	3.559	0.024	0.23	DR
RAQY3B		3.675	0.191	1.71	3.699	0.164	1.56	OE
TXFK2X		3.481	-0.002	-0.02	3.365	-0.169	-1.61	OE
WRU3RH		3.567	0.083	0.74	3.610	0.076	0.72	WD
YTHA9K		3.500	0.017	0.15	3.600	0.066	0.63	OE
ZGLKRB		3.410	-0.073	-0.66	3.513	-0.021	-0.20	XX
ZTJBPC		3.633	0.150	1.34	3.620	0.086	0.82	OE

Summary Statistics

	Sample J35		Sample J36	
Grand Means	3.483	Percent	3.534	Percent
Stnd Dev Btwn Labs	0.112	Percent	0.105	Percent

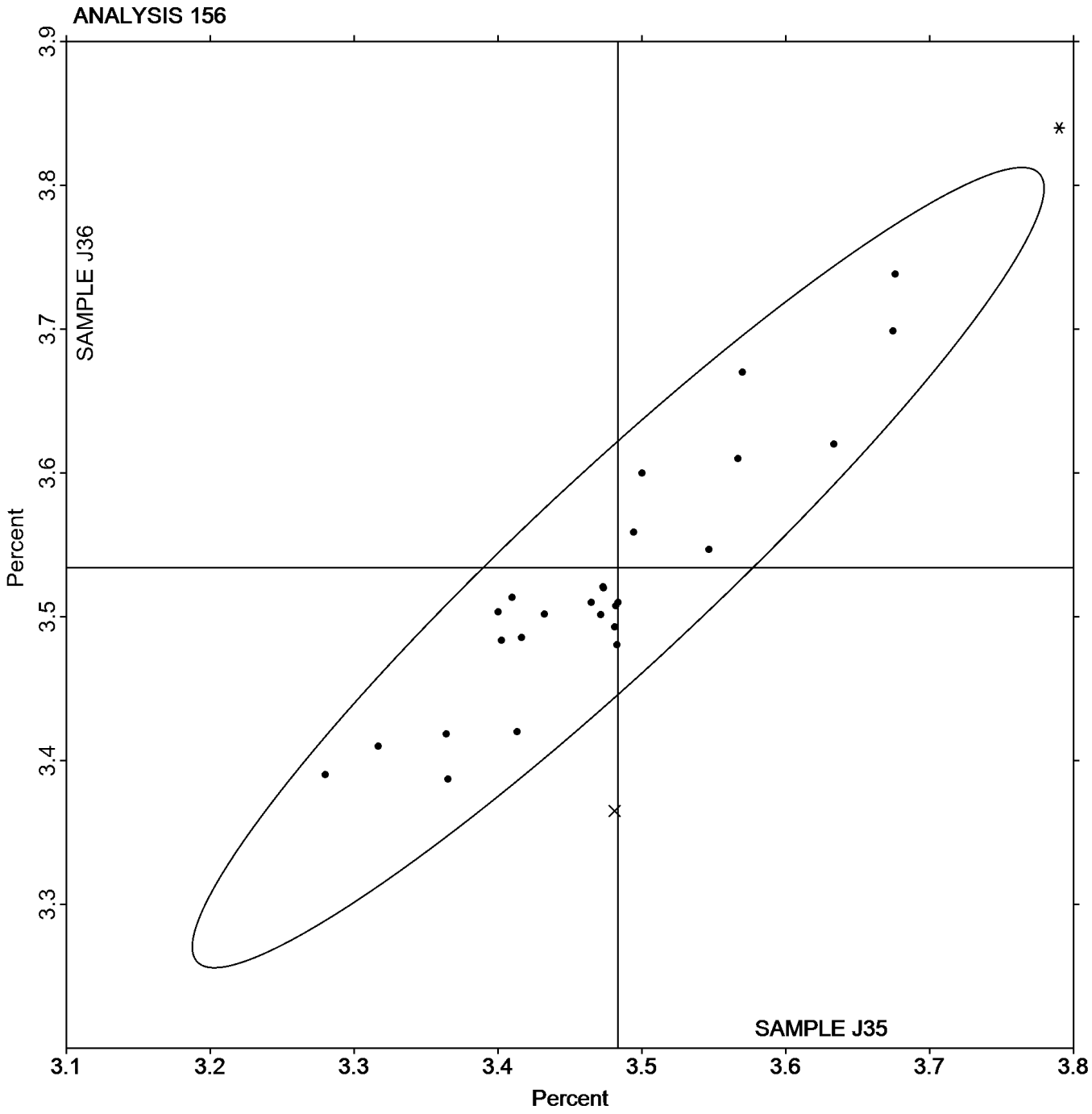
Samples J35, J36 : Alloy 625, two different heats

Statistics based on 28 of 29 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 J35	SAMPLE J36
3.483 Percent	3.534 Percent



WebCode	Data Flag	Sample J35 Lab Mean	Sample J35 Diff. from Grand Mean	Sample J35 CPV	Sample J36 Lab Mean	Sample J36 Diff. from Grand Mean	Sample J36 CPV	Method
4Q46NJ		0.2470	0.0029	0.33	0.2937	-0.0008	-0.07	OE
64HQKH		0.2360	-0.0081	-0.90	0.2890	-0.0055	-0.50	GD
6PMFU6		0.2327	-0.0114	-1.28	0.2827	-0.0118	-1.09	WD
7FD9RB		0.2377	-0.0064	-0.72	0.2888	-0.0057	-0.52	XX
7K3W2M		0.2400	-0.0041	-0.45	0.2760	-0.0185	-1.70	OE
8C7CHR		0.2580	0.0139	1.56	0.3097	0.0152	1.40	OE
CJNKJH		0.2523	0.0083	0.93	0.3103	0.0159	1.46	OE
DNFX9D		0.2380	-0.0061	-0.68	0.2857	-0.0088	-0.81	OE
EJKNCK		0.2377	-0.0064	-0.72	0.2887	-0.0058	-0.53	OE
EZ84FG	*	0.2683	0.0243	2.72	0.3097	0.0152	1.40	XX
F3RBGP	X	0.2017	-0.0424	-4.74	0.2533	-0.0411	-3.79	OE
FQX2UF		0.2300	-0.0141	-1.57	0.2700	-0.0245	-2.25	OE
G4JTVV		0.2427	-0.0014	-0.16	0.2977	0.0032	0.30	XR
JMPQNQ		0.2453	0.0013	0.14	0.2927	-0.0018	-0.16	IC
JZVRCT		0.2317	-0.0124	-1.39	0.2900	-0.0045	-0.41	IC
L3M2XD		0.2493	0.0053	0.59	0.3097	0.0152	1.40	GD
MEMQPZ		0.2490	0.0049	0.55	0.3037	0.0092	0.85	OE
N2BR9D		0.2503	0.0063	0.70	0.2897	-0.0048	-0.44	WD
NG9WM2		0.2530	0.0089	1.00	0.3107	0.0162	1.49	OE
NHB2RA		0.2567	0.0126	1.41	0.3100	0.0155	1.43	OE
PPCDM7		0.2353	-0.0087	-0.98	0.2900	-0.0045	-0.41	IC
QY2CZX		0.2393	-0.0047	-0.53	0.2920	-0.0025	-0.23	XX
R2H9WM		0.2383	-0.0057	-0.64	0.2937	-0.0008	-0.07	DR
RAQY3B		0.2360	-0.0081	-0.90	0.2847	-0.0098	-0.90	OE
T8ZXU2		0.2433	-0.0007	-0.08	0.2907	-0.0038	-0.35	IC
TXFK2X		0.2407	-0.0034	-0.38	0.2910	-0.0035	-0.32	OE
WRU3RH		0.2450	0.0009	0.11	0.2983	0.0039	0.36	WD
YTHA9K		0.2500	0.0059	0.66	0.3067	0.0122	1.13	OE
ZTJBPC		0.2500	0.0059	0.66	0.2897	-0.0048	-0.44	OE

Summary Statistics

	Sample J35		Sample J36	
Grand Means	0.2441	Percent	0.2945	Percent
Stnd Dev Btwn Labs	0.0089	Percent	0.0109	Percent

Samples J35, J36 : Alloy 625, two different heats

Statistics based on 28 of 29 reporting participants

Key to Method Codes Reported by Participants

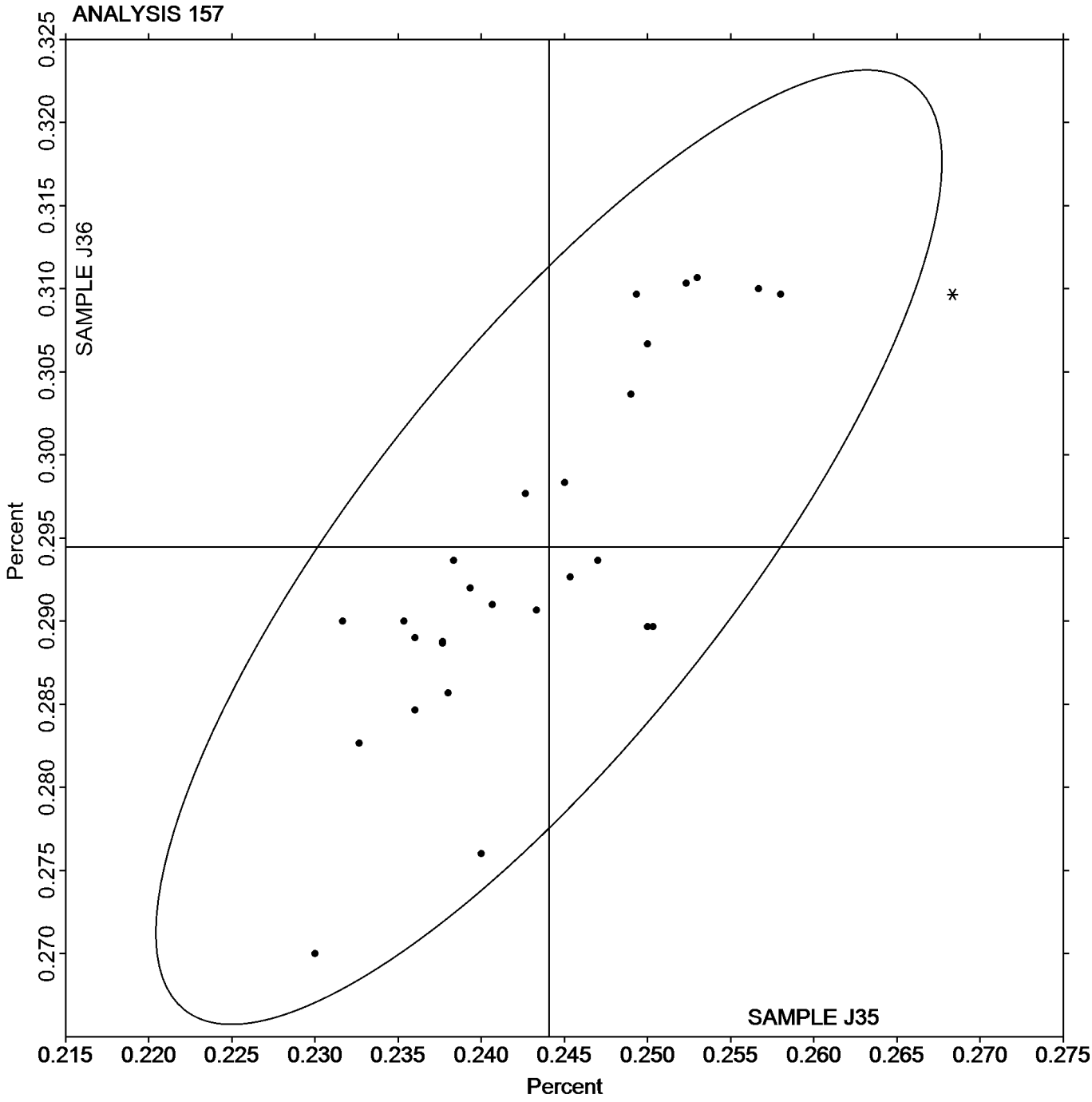
DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IC	Spectrometry - Inductively Coupled Plasma (ICP)	OE	Spectrometry - Optical Emission (OES)
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used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

Comments on Assigned Data Flags for Test #157

F3RBGP (X) - Data for both samples are low.

SAMPLE J35
0.2441 Percent

SAMPLE J36
0.2945 Percent



		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
263L4T		0.0467	0.0000	0.01	0.0450	-0.0003	-0.11	OE
2YH8WE		0.0450	-0.0016	-0.61	0.0437	-0.0017	-0.57	OE
3P6WML	X	0.0460	-0.0006	-0.24	0.4503	0.4050	139.51	DR
4Q46NJ		0.0457	-0.0010	-0.36	0.0430	-0.0023	-0.80	CI
64HQKH		0.0462	-0.0004	-0.15	0.0447	-0.0006	-0.21	GD
7FD9RB		0.0475	0.0008	0.31	0.0450	-0.0004	-0.12	CI
7K3W2M	*	0.0390	-0.0076	-2.85	0.0370	-0.0083	-2.87	OE
7PGHXZ		0.0530	0.0064	2.38	0.0513	0.0060	2.07	OE
7YHYGP		0.0522	0.0056	2.08	0.0511	0.0058	1.99	OE
8JLXJH		0.0477	0.0010	0.39	0.0465	0.0012	0.40	OE
8VVZHL		0.0440	-0.0026	-0.98	0.0433	-0.0020	-0.69	GD
96Z3P4		0.0489	0.0022	0.83	0.0491	0.0037	1.29	OE
D3FZNZ		0.0473	0.0007	0.26	0.0470	0.0017	0.58	OE
D6HRPK		0.0460	-0.0006	-0.24	0.0457	0.0003	0.12	CI
DPQZWX		0.0460	-0.0006	-0.24	0.0450	-0.0003	-0.11	DR
EJKNCK		0.0473	0.0007	0.25	0.0463	0.0010	0.35	OE
EZ84FG		0.0447	-0.0020	-0.74	0.0431	-0.0023	-0.78	IR
F3RBGP		0.0453	-0.0013	-0.49	0.0423	-0.0030	-1.03	CO
FT2ULT	*	0.0453	-0.0013	-0.49	0.0407	-0.0047	-1.61	OE
G2ALQG		0.0450	-0.0016	-0.60	0.0445	-0.0009	-0.30	CI
G43HDQ		0.0460	-0.0006	-0.23	0.0460	0.0006	0.22	OE
GYQKWV		0.0417	-0.0050	-1.86	0.0420	-0.0033	-1.15	OE
HJPERQ		0.0436	-0.0030	-1.13	0.0517	0.0063	2.18	CI
J7HQG8		0.0440	-0.0026	-0.98	0.0433	-0.0020	-0.69	OE
KLAYZR		0.0519	0.0053	1.97	0.0491	0.0038	1.31	CO
KMJQ8M		0.0460	-0.0006	-0.24	0.0457	0.0003	0.12	CI
L3M2XD		0.0444	-0.0023	-0.85	0.0444	-0.0009	-0.31	GD
LBKNV6		0.0488	0.0022	0.82	0.0471	0.0018	0.62	OE
MEMQPZ		0.0499	0.0033	1.23	0.0495	0.0042	1.45	OE
N2BR9D		0.0465	-0.0001	-0.05	0.0455	0.0002	0.06	CI
NG9WM2		0.0484	0.0018	0.67	0.0486	0.0033	1.13	OE
PPCDM7		0.0470	0.0003	0.12	0.0457	0.0004	0.14	CO
QY2CZX		0.0460	-0.0006	-0.22	0.0452	-0.0002	-0.06	CO
R2H9WM		0.0478	0.0012	0.43	0.0453	-0.0001	-0.02	CO
RAQY3B	X	0.0640	0.0174	6.48	0.0580	0.0127	4.36	OE
RDFYNL		0.0439	-0.0027	-1.01	0.0409	-0.0044	-1.51	OE
RVQXMN		0.0483	0.0017	0.63	0.0443	-0.0010	-0.34	OE
RXVQE2	X	0.0273	-0.0193	-7.21	0.0310	-0.0143	-4.94	OE
T76ETZ		0.0444	-0.0022	-0.83	0.0421	-0.0033	-1.12	CI
T8ZXU2		0.0500	0.0033	1.24	0.0494	0.0041	1.41	CI
TJTGBT		0.0440	-0.0026	-0.98	0.0427	-0.0027	-0.92	CI
TRPCBC		0.0433	-0.0033	-1.23	0.0420	-0.0033	-1.15	OE
TXFK2X		0.0497	0.0031	1.16	0.0408	-0.0046	-1.57	OE
V3W7CE		0.0449	-0.0017	-0.65	0.0458	0.0005	0.17	OE
VLU44M		0.0462	-0.0005	-0.17	0.0442	-0.0012	-0.40	CI
VTCJKY		0.0494	0.0028	1.03	0.0485	0.0032	1.09	OE
W3F6AD		0.0472	0.0006	0.21	0.0459	0.0005	0.19	CO

Fasteners and Metals Interlaboratory Testing Program

Analysis 180

Chemical Analysis Element #1 - Corrosion Resistant Steel - Percent CARBON (C)

		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
WF8PXG	X	0.0336	-0.0131	-4.88	0.0337	-0.0117	-4.02	OE
WRU3RH		0.0423	-0.0043	-1.61	0.0410	-0.0043	-1.49	CI
XF2URF		0.0503	0.0037	1.38	0.0489	0.0035	1.22	OE
YEFPML	X	0.0570	0.0104	3.87	0.0583	0.0129	4.46	CI
YPY4N4		0.0486	0.0020	0.74	0.0454	0.0001	0.04	CO
YQEGEL		0.0463	-0.0003	-0.11	0.0443	-0.0010	-0.34	CI
YTHA9K		0.0480	0.0014	0.51	0.0473	0.0020	0.69	OE
ZGLKRB		0.0487	0.0020	0.76	0.0473	0.0020	0.69	OE
ZTJBPC		0.0480	0.0014	0.51	0.0493	0.0040	1.38	OE

Summary Statistics

	Sample M35		Sample M36	
Grand Means	0.0466	Percent	0.0453	Percent
Stnd Dev Btwn Labs	0.0027	Percent	0.0029	Percent

Samples M35, M36 : AISI 310, two different heats

Statistics based on 49 of 56 reporting participants

Key to Method Codes Reported by Participants

CI	Combustion / IR	CO	Combustion
DR	Spectrometry - Direct Reading OE (DROES)	GD	Spectrometry - Glow Discharge (GDS)
IR	IR (Absorbstion / Detection)	OE	Spectrometry - Optical Emission (OES)

Comments on Assigned Data Flags for Test #180

3P6WML (X) - Data for sample M36 are high.

RAQY3B (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample M35.

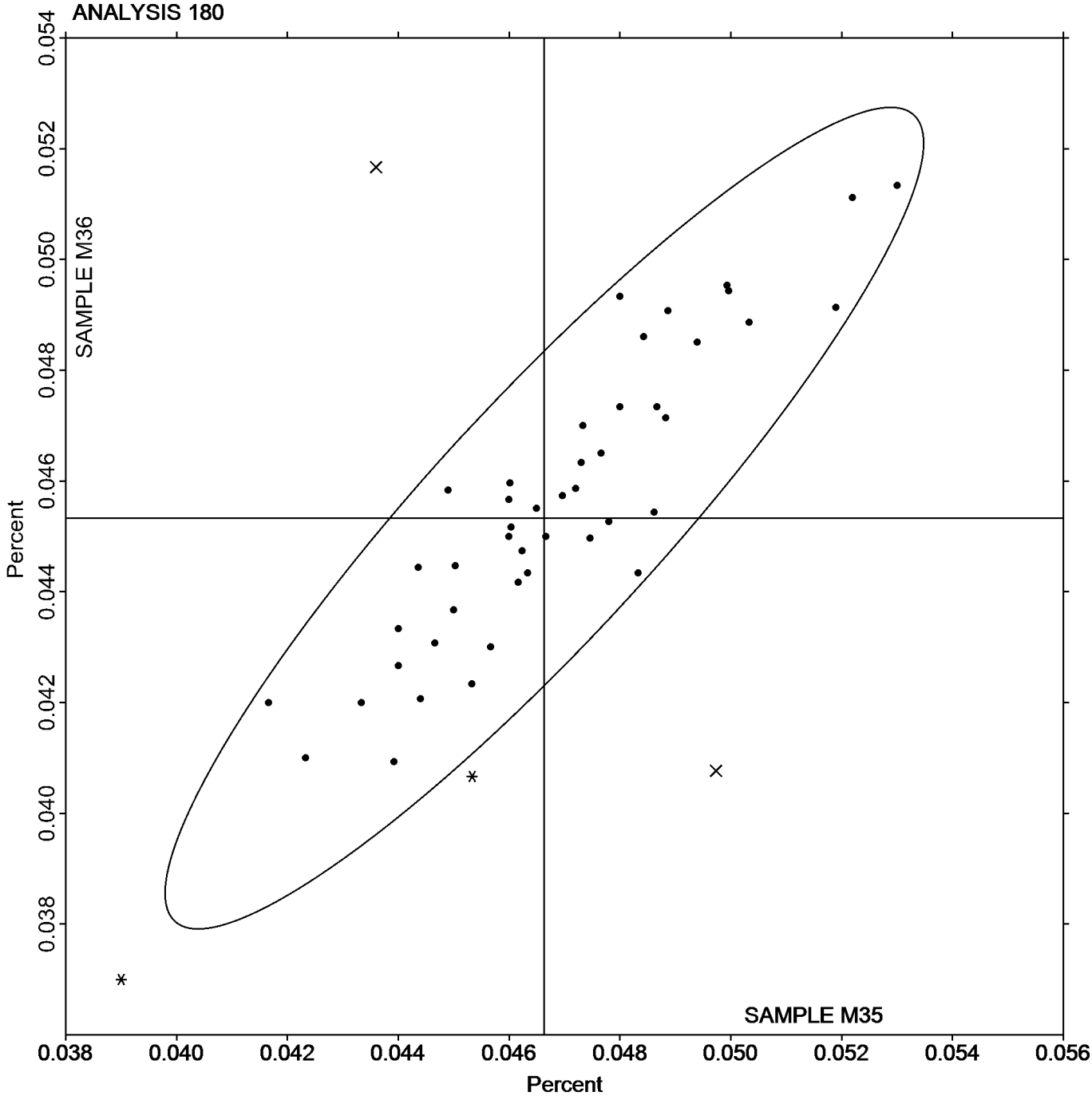
RXVQE2 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample M36.

WF8PXG (X) - Data for both samples are low. Possible Systematic Error.

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

SAMPLE M35
0.0466 Percent

SAMPLE M36
0.0453 Percent



		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
263L4T		1.181	0.009	0.64	1.373	0.012	0.73	XR
2YH8WE		1.169	-0.003	-0.20	1.356	-0.004	-0.22	OE
3P6WML		1.177	0.005	0.36	1.347	-0.014	-0.79	DR
4Q46NJ		1.173	0.002	0.12	1.363	0.003	0.19	OE
64HQKH	X	1.080	-0.092	-6.40	1.270	-0.090	-5.28	GD
7FD9RB		1.173	0.001	0.08	1.370	0.010	0.60	WD
7K3W2M	X	1.220	0.048	3.38	1.440	0.080	4.68	OE
7PGHXZ	X	1.237	0.065	4.55	1.153	-0.207	-12.12	OE
7YHYGP		1.143	-0.028	-1.97	1.378	0.018	1.05	OE
8JLXJH		1.186	0.014	1.01	1.383	0.023	1.34	OE
8VVZHL		1.167	-0.005	-0.34	1.343	-0.017	-0.99	GD
96Z3P4		1.199	0.028	1.94	1.396	0.036	2.12	OE
D3FZNZ		1.177	0.005	0.36	1.363	0.003	0.19	OE
D6HRPK		1.181	0.010	0.67	1.365	0.005	0.29	IC
DPQZWX		1.160	-0.012	-0.81	1.330	-0.030	-1.77	DR
EJKNCK		1.184	0.012	0.87	1.383	0.022	1.32	OE
EZ84FG		1.166	-0.006	-0.39	1.353	-0.007	-0.42	WD
F3RBGP		1.183	0.011	0.78	1.370	0.009	0.56	XR
FT2ULT		1.160	-0.012	-0.81	1.360	0.000	-0.01	WD
G2ALQG		1.163	-0.009	-0.60	1.353	-0.007	-0.40	WD
G43HDQ		1.171	-0.001	-0.05	1.363	0.002	0.14	OE
GYQKWV		1.170	-0.001	-0.09	1.364	0.003	0.21	OE
HJPERQ		1.159	-0.013	-0.90	1.364	0.004	0.24	OE
J7HQG8		1.196	0.024	1.68	1.381	0.020	1.20	OE
KMJQ8M		1.156	-0.016	-1.11	1.359	-0.001	-0.05	DR
L3M2XD	X	1.254	0.082	5.74	1.451	0.091	5.34	GD
LBKNV6	X	1.230	0.058	4.08	1.420	0.060	3.51	OE
MEMQPZ		1.190	0.018	1.29	1.377	0.017	1.01	OE
N2BR9D		1.183	0.011	0.78	1.369	0.009	0.52	WD
NG9WM2		1.151	-0.021	-1.46	1.348	-0.012	-0.69	OE
PPCDM7		1.188	0.017	1.17	1.387	0.026	1.55	IC
QY2CZX		1.178	0.006	0.45	1.357	-0.003	-0.17	WD
R2H9WM		1.192	0.021	1.45	1.378	0.017	1.03	DR
RAQY3B		1.151	-0.021	-1.44	1.351	-0.009	-0.54	OE
RDFYNL		1.163	-0.008	-0.57	1.350	-0.010	-0.57	OE
RVQXMN		1.167	-0.005	-0.34	1.383	0.023	1.36	OE
RXVQE2	X	1.899	0.727	50.83	2.160	0.800	46.88	OE
T76ETZ		1.150	-0.022	-1.51	1.349	-0.012	-0.67	WD
T8ZXU2		1.170	-0.001	-0.09	1.344	-0.016	-0.93	IC
TJTGBT		1.160	-0.012	-0.81	1.340	-0.020	-1.18	OE
TRPCBC		1.170	-0.002	-0.11	1.373	0.013	0.77	XX
TXFK2X	*	1.186	0.015	1.03	1.343	-0.018	-1.03	OE
V3W7CE		1.190	0.018	1.26	1.386	0.026	1.51	OE
VLU44M		1.169	-0.003	-0.18	1.356	-0.005	-0.26	WD
VTCJKY		1.155	-0.017	-1.16	1.338	-0.022	-1.30	OE
W3F6AD		1.165	-0.006	-0.45	1.375	0.015	0.87	OE
WF8PXG		1.190	0.018	1.29	1.377	0.016	0.97	OE

Fasteners and Metals Interlaboratory Testing Program
Analysis 181
Chemical Analysis Element #2 - Corrosion Resistant Steel - Percent
MANGANESE (Mn)

Cycle 114
2nd Qtr
2016

		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
WRU3RH		1.190	0.018	1.29	1.377	0.016	0.97	WD
XF2URF		1.159	-0.013	-0.90	1.339	-0.021	-1.22	OE
YEFPML		1.157	-0.015	-1.04	1.347	-0.014	-0.79	OE
YPY4N4		1.146	-0.025	-1.77	1.334	-0.026	-1.51	XR
YQEGEL		1.177	0.005	0.36	1.363	0.003	0.19	IC
YTHA9K		1.143	-0.028	-1.97	1.320	-0.040	-2.35	OE
Z8FRCN	X	1.250	0.078	5.48	1.340	-0.020	-1.18	ED
ZGLKRB		1.157	-0.015	-1.04	1.337	-0.024	-1.38	OE
ZTJBPC	*	1.190	0.018	1.29	1.350	-0.010	-0.60	OE

Summary Statistics

	Sample M35		Sample M36	
Grand Means	1.172	Percent	1.360	Percent
Stnd Dev Btwn Labs	0.014	Percent	0.017	Percent

Samples M35, M36 : AISI 310, two different heats

Statistics based on 48 of 56 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 #181

64HQKH (X) - Data for both samples are low.

7K3W2M (X) - Data for both samples are high.

7PGHXZ (X) - Data for sample M35 are high and data for sample M36 are low.

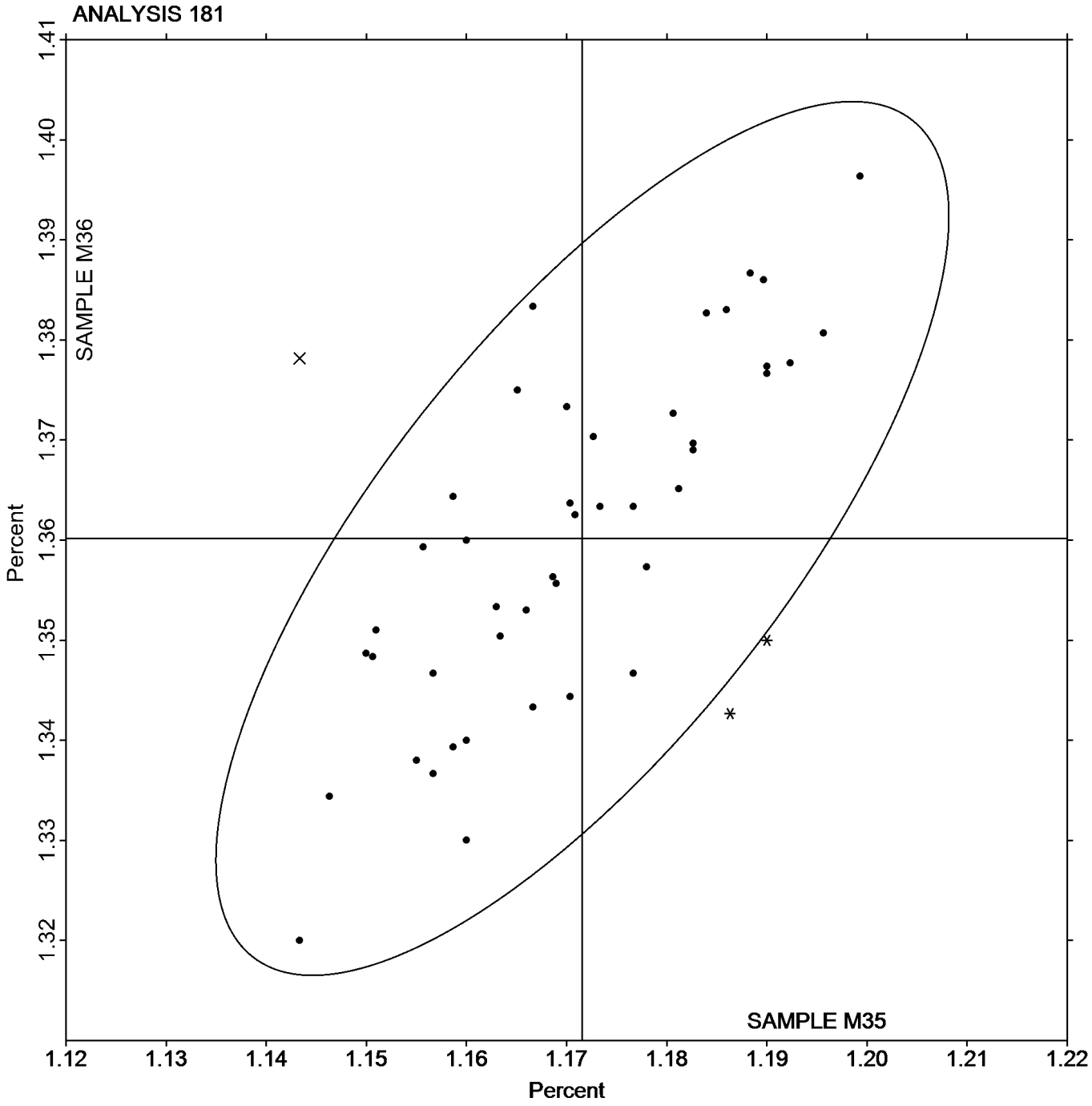
L3M2XD (X) - Data for both samples are high.

LBKNV6 (X) - Data for both samples are high.

RXVQE2 (X) - Data for both samples are high.

Z8FRCN (X) - Data for sample M35 are high.

SAMPLE M35	SAMPLE M36
1.172 Percent	1.360 Percent



		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
263L4T		0.0197	-0.0001	-0.12	0.0277	0.0002	0.10	XR
3P6WML		0.0197	-0.0001	-0.12	0.0270	-0.0005	-0.30	DR
4Q46NJ		0.0180	-0.0018	-1.50	0.0300	0.0025	1.50	OE
64HQKH		0.0216	0.0018	1.51	0.0287	0.0012	0.72	GD
7FD9RB		0.0217	0.0019	1.54	0.0303	0.0028	1.70	WD
7K3W2M	*	0.0180	-0.0018	-1.50	0.0230	-0.0045	-2.69	OE
7PGHXZ	*	0.0230	0.0032	2.65	0.0297	0.0022	1.30	OE
7YHYGP		0.0198	-0.0001	-0.05	0.0289	0.0014	0.87	OE
8JLXJH		0.0198	0.0000	-0.01	0.0273	-0.0002	-0.14	OE
8VVZHL		0.0200	0.0002	0.16	0.0270	-0.0005	-0.30	GD
96Z3P4		0.0195	-0.0003	-0.23	0.0267	-0.0008	-0.50	OE
D3FZNZ		0.0190	-0.0008	-0.67	0.0270	-0.0005	-0.30	OE
D6HRPK		0.0194	-0.0004	-0.34	0.0270	-0.0005	-0.28	IC
DPQZWX		0.0193	-0.0005	-0.40	0.0273	-0.0002	-0.10	DR
EJKNCK		0.0203	0.0005	0.38	0.0277	0.0002	0.10	OE
EZ84FG		0.0209	0.0011	0.93	0.0271	-0.0004	-0.24	WD
F3RBGP		0.0190	-0.0008	-0.67	0.0257	-0.0018	-1.10	OE
FT2ULT		0.0190	-0.0008	-0.67	0.0267	-0.0008	-0.50	WD
G2ALQG		0.0189	-0.0009	-0.76	0.0273	-0.0002	-0.12	WD
G43HDQ		0.0195	-0.0003	-0.26	0.0267	-0.0008	-0.50	OE
GYQKWV		0.0207	0.0009	0.71	0.0257	-0.0018	-1.10	OE
HJPERQ		0.0192	-0.0006	-0.54	0.0278	0.0003	0.16	OE
J7HQG8		0.0210	0.0012	0.99	0.0300	0.0025	1.50	OE
KMJQ8M		0.0200	0.0002	0.16	0.0267	-0.0008	-0.50	DR
L3M2XD		0.0178	-0.0020	-1.67	0.0256	-0.0019	-1.16	GD
LBKNV6	*	0.0214	0.0016	1.35	0.0324	0.0049	2.93	OE
MEMQPZ		0.0196	-0.0002	-0.15	0.0272	-0.0003	-0.16	OE
N2BR9D		0.0191	-0.0007	-0.56	0.0272	-0.0003	-0.20	WD
NG9WM2		0.0205	0.0007	0.54	0.0261	-0.0014	-0.84	OE
PPCDM7		0.0202	0.0004	0.35	0.0277	0.0002	0.14	IC
QY2CZX		0.0183	-0.0015	-1.23	0.0280	0.0005	0.30	WD
RAQY3B		0.0172	-0.0026	-2.14	0.0249	-0.0026	-1.56	OE
RDFYNL		0.0210	0.0012	1.01	0.0297	0.0022	1.32	OE
RVQXMN		0.0200	0.0002	0.16	0.0287	0.0012	0.70	OE
RXVQE2	X	0.0120	-0.0078	-6.48	0.0183	-0.0092	-5.49	OE
T76ETZ	M	No Data Reported			0.0279	0.0004	0.26	WD
TJTGBT		0.0207	0.0009	0.71	0.0280	0.0005	0.30	OE
TRPCBC		0.0223	0.0025	2.09	0.0310	0.0035	2.09	XX
TXFK2X		0.0203	0.0005	0.41	0.0281	0.0006	0.36	OE
V3W7CE		0.0207	0.0009	0.71	0.0290	0.0015	0.92	OE
VLU44M		0.0206	0.0008	0.65	0.0270	-0.0005	-0.30	WD
VTCJKY	*	0.0176	-0.0022	-1.86	0.0277	0.0002	0.14	OE
W3F6AD		0.0197	-0.0001	-0.10	0.0265	-0.0010	-0.61	OE
WF8PXG	X	0.0151	-0.0047	-3.91	0.0211	-0.0064	-3.83	OE
WRU3RH		0.0200	0.0002	0.16	0.0280	0.0005	0.30	WD
XF2URF		0.0188	-0.0010	-0.87	0.0267	-0.0008	-0.48	OE
YEFPML		0.0203	0.0005	0.43	0.0283	0.0008	0.50	OE

		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
YPY4N4		0.0189	-0.0009	-0.77	0.0268	-0.0008	-0.45	XR
YQEGEL		0.0180	-0.0018	-1.50	0.0243	-0.0032	-1.90	IC
YTHA9K		0.0193	-0.0005	-0.40	0.0273	-0.0002	-0.10	OE
ZTJBPC	X	0.0263	0.0065	5.41	0.0283	0.0008	0.50	OE

Summary Statistics

	Sample M35		Sample M36	
Grand Means	0.0198	Percent	0.0275	Percent
Stnd Dev Btwn Labs	0.0012	Percent	0.0017	Percent

Samples M35, M36 : AISI 310, two different heats

Statistics based on 46 of 51 reporting participants

Key to Method Codes Reported by Participants

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

TRPCBC - Data appeared to be submitted with a decimal placement error. Data were corrected by CTS.

Comments on Assigned Data Flags for Test #182

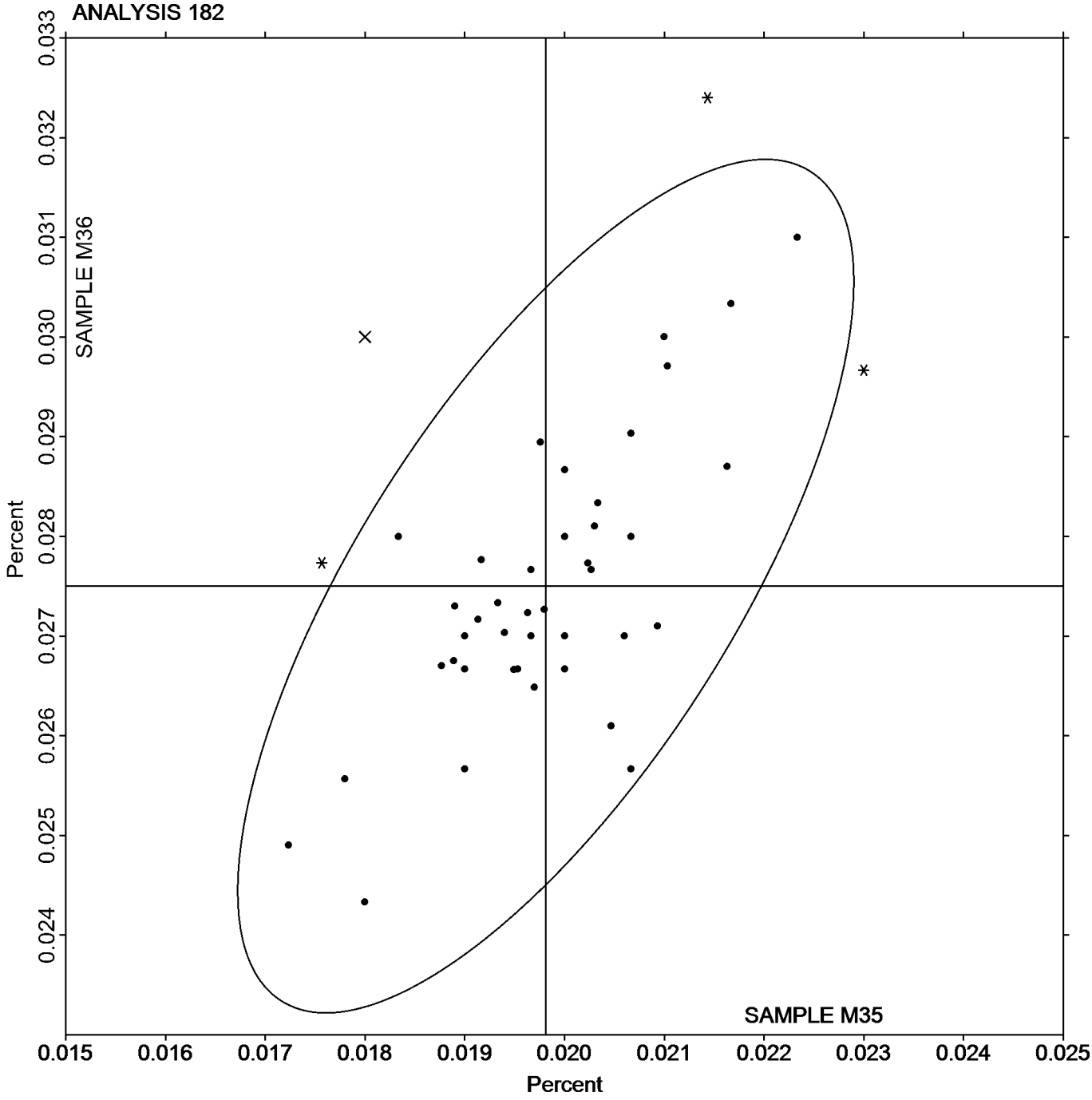
RXVQE2 (X) - Data for both samples are low. Inconsistent within the determinations of sample M35.

T76ETZ (M) - Participant did not submit data for sample M35.

WF8PXG (X) - Data for both samples are low.

ZTJBPC (X) - Data for sample M35 are high. Inconsistent within the determinations of sample M35.

SAMPLE M35	SAMPLE M36
0.0198 Percent	0.0275 Percent



		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
263L4T		0.0717	0.0031	0.43	0.0900	0.0034	0.52	XR
2YH8WE		0.0627	-0.0059	-0.83	0.0837	-0.0029	-0.43	OE
3P6WML		0.0673	-0.0013	-0.18	0.0850	-0.0016	-0.23	DR
4Q46NJ	*	0.0660	-0.0026	-0.36	0.0900	0.0034	0.52	OE
64HQKH		0.0860	0.0174	2.45	0.1033	0.0168	2.52	GD
7FD9RB		0.0647	-0.0039	-0.55	0.0787	-0.0079	-1.19	WD
7K3W2M		0.0750	0.0064	0.90	0.0900	0.0034	0.52	OE
7PGHXZ		0.0620	-0.0066	-0.93	0.0780	-0.0086	-1.29	XX
7YHYGP		0.0793	0.0107	1.51	0.0958	0.0093	1.39	OE
8JLXJH		0.0630	-0.0056	-0.79	0.0823	-0.0042	-0.63	OE
8VVZHL		0.0810	0.0124	1.75	0.1010	0.0144	2.17	GD
96Z3P4		0.0749	0.0063	0.89	0.0939	0.0073	1.10	OE
D3FZNZ		0.0693	0.0007	0.11	0.0853	-0.0012	-0.18	OE
D6HRPK		0.0721	0.0035	0.49	0.0916	0.0050	0.75	IC
DPQZWX		0.0677	-0.0009	-0.13	0.0847	-0.0019	-0.28	DR
EJKNCK		0.0583	-0.0103	-1.44	0.0760	-0.0106	-1.59	OE
EZ84FG		0.0677	-0.0009	-0.13	0.0877	0.0011	0.17	WD
F3RBGP		0.0680	-0.0006	-0.08	0.0850	-0.0016	-0.23	OE
FT2ULT		0.0640	-0.0046	-0.65	0.0830	-0.0036	-0.53	WD
G2ALQG		0.0677	-0.0009	-0.13	0.0863	-0.0002	-0.03	WD
G43HDQ		0.0679	-0.0006	-0.09	0.0846	-0.0020	-0.29	OE
HJPERQ		0.0653	-0.0033	-0.46	0.0852	-0.0014	-0.21	XX
J7HQG8	X	0.1050	0.0364	5.13	0.1187	0.0321	4.82	OE
KMJQ8M		0.0670	-0.0016	-0.22	0.0860	-0.0006	-0.08	DR
L3M2XD	X	0.0148	-0.0538	-7.58	0.0149	-0.0717	-10.75	GD
LBKNV6	*	0.0862	0.0176	2.48	0.1004	0.0138	2.08	OE
MEMQPZ		0.0710	0.0024	0.34	0.0897	0.0031	0.47	OE
N2BR9D		0.0650	-0.0036	-0.51	0.0840	-0.0026	-0.38	WD
NG9WM2		0.0707	0.0021	0.29	0.0880	0.0014	0.22	OE
PPCDM7		0.0567	-0.0119	-1.68	0.0757	-0.0109	-1.64	IC
QY2CZX	*	0.0480	-0.0206	-2.90	0.0677	-0.0189	-2.84	WD
RAQY3B		0.0687	0.0001	0.01	0.0843	-0.0022	-0.33	OE
RDFYNL		0.0691	0.0006	0.08	0.0874	0.0008	0.13	OE
RVQXMN		0.0667	-0.0019	-0.27	0.0827	-0.0039	-0.58	OE
RXVQE2	X	0.1297	0.0611	8.61	0.1443	0.0578	8.67	OE
T76ETZ		0.0573	-0.0113	-1.59	0.0770	-0.0096	-1.44	WD
T8ZXU2		0.0687	0.0001	0.01	0.0890	0.0024	0.37	IC
TJTGBT		0.0690	0.0004	0.06	0.0853	-0.0012	-0.18	OE
TRPCBC		0.0717	0.0031	0.43	0.0850	-0.0016	-0.23	XX
TXFK2X		0.0680	-0.0006	-0.08	0.0850	-0.0016	-0.23	OE
V3W7CE		0.0673	-0.0013	-0.19	0.0890	0.0024	0.36	OE
VLU44M		0.0672	-0.0014	-0.20	0.0849	-0.0017	-0.25	WD
VTCJKY		0.0837	0.0151	2.12	0.0977	0.0111	1.67	OE
W3F6AD		0.0678	-0.0008	-0.11	0.0842	-0.0024	-0.36	OE
WF8PXG		0.0677	-0.0009	-0.13	0.0857	-0.0009	-0.13	OE
WRU3RH		0.0653	-0.0033	-0.46	0.0837	-0.0029	-0.43	WD
YEFPML		0.0703	0.0017	0.25	0.0893	0.0028	0.42	OE

WebCode	Data Flag	Sample M35 Lab Mean	Sample M35 Diff. from Grand Mean	Sample M35 CPV	Sample M36 Lab Mean	Sample M36 Diff. from Grand Mean	Sample M36 CPV	Method
YPY4N4		0.0637	-0.0049	-0.69	0.0831	-0.0035	-0.53	XR
YQEGEL		0.0693	0.0007	0.11	0.0880	0.0014	0.22	IC
YTHA9K		0.0800	0.0114	1.61	0.0900	0.0034	0.52	OE
ZTJBPC		0.0760	0.0074	1.04	0.0950	0.0084	1.27	OE

Summary Statistics

	Sample M35		Sample M36	
Grand Means	0.0686	Percent	0.0866	Percent
Stnd Dev Btwn Labs	0.0071	Percent	0.0067	Percent

Samples M35, M36 : AISI 310, two different heats

Statistics based on 47 of 51 reporting participants

Key to Method Codes Reported by Participants

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

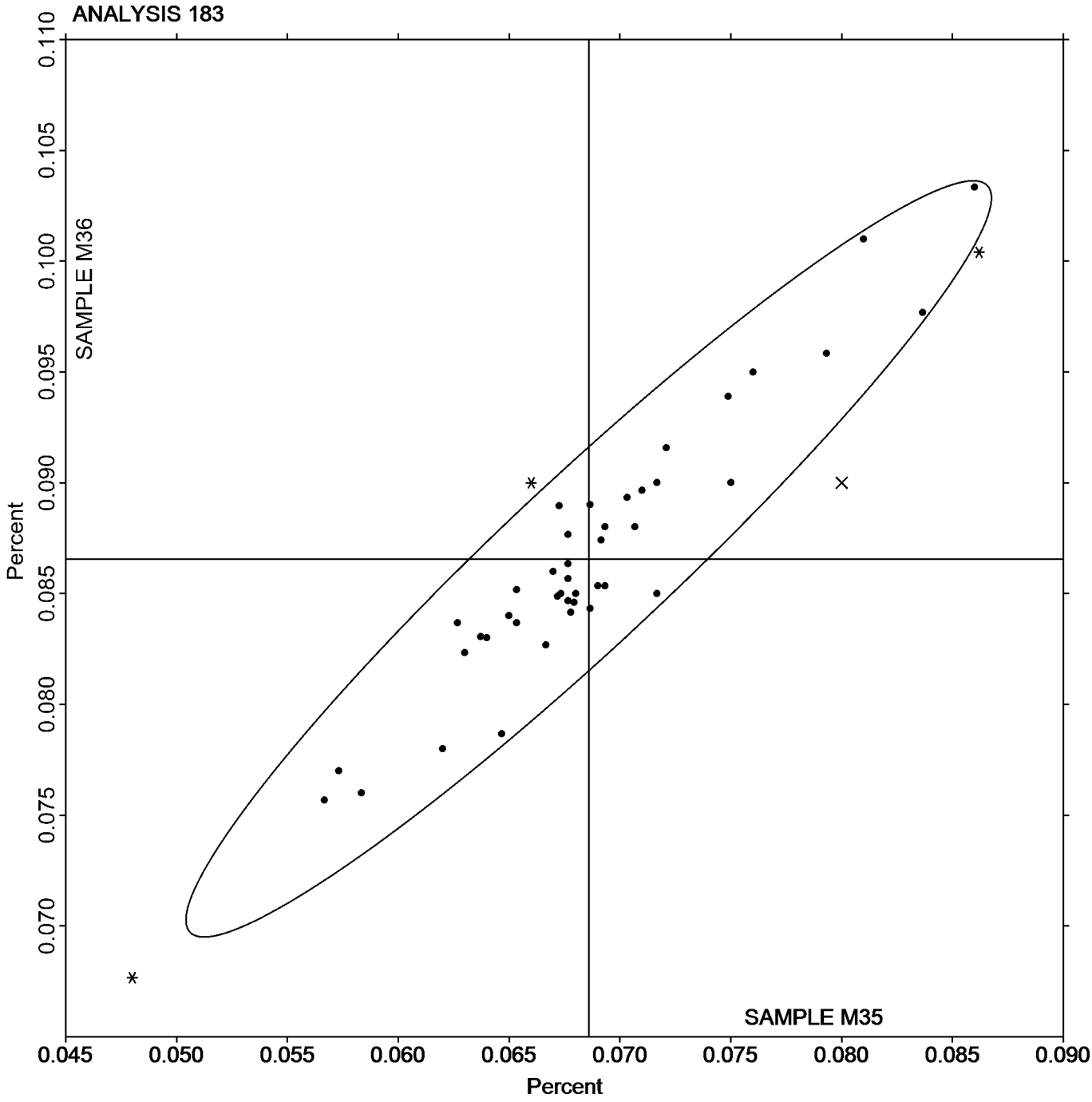
Comments on Assigned Data Flags for Test #183

J7HQG8 (X) - Data for both samples are high. Possible Systematic Error.

L3M2XD (X) - Data for both samples are low. Possible Systematic Error.

RXVQE2 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample M36.

SAMPLE M35	SAMPLE M36
0.0686 Percent	0.0866 Percent



		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
263L4T		0.4867	-0.0017	-0.12	0.6250	-0.0035	-0.20	XR
2YH8WE		0.4863	-0.0021	-0.15	0.6297	0.0011	0.06	OE
3P6WML		0.4883	-0.0001	-0.01	0.6277	-0.0009	-0.05	DR
4Q46NJ		0.4967	0.0083	0.59	0.6300	0.0015	0.08	OE
64HQKH	*	0.5077	0.0193	1.37	0.6227	-0.0059	-0.34	GD
7FD9RB		0.4617	-0.0267	-1.90	0.5900	-0.0385	-2.20	WD
7K3W2M	X	0.5400	0.0516	3.67	0.7000	0.0715	4.09	OE
7PGHXZ		0.5000	0.0116	0.82	0.6467	0.0181	1.04	XX
7YHYGP	*	0.5235	0.0351	2.49	0.6817	0.0532	3.04	OE
8JLXJH		0.4740	-0.0144	-1.02	0.6287	0.0001	0.01	OE
8VVZHL		0.5180	0.0296	2.10	0.6590	0.0305	1.74	GD
96Z3P4	*	0.5247	0.0363	2.58	0.6698	0.0413	2.36	OE
D3FZNZ		0.4987	0.0103	0.73	0.6360	0.0075	0.43	OE
D6HRPK		0.4845	-0.0039	-0.28	0.6269	-0.0016	-0.09	IC
DPQZWX		0.5013	0.0129	0.92	0.6290	0.0005	0.03	DR
EJKNCK		0.4803	-0.0081	-0.57	0.6253	-0.0032	-0.18	OE
EZ84FG		0.4840	-0.0044	-0.31	0.6177	-0.0109	-0.62	WD
F3RBGP		0.4777	-0.0107	-0.76	0.6127	-0.0159	-0.91	OE
FT2ULT		0.4900	0.0016	0.11	0.6300	0.0015	0.08	WD
G2ALQG		0.4930	0.0046	0.33	0.6353	0.0068	0.39	WD
G43HDQ		0.4930	0.0045	0.32	0.6386	0.0101	0.58	OE
GYQKWV	X	0.4330	-0.0554	-3.94	0.5487	-0.0799	-4.57	OE
HJPERQ		0.4747	-0.0137	-0.98	0.6220	-0.0065	-0.37	OE
J7HQG8		0.4923	0.0039	0.28	0.6143	-0.0142	-0.81	OE
KMJQ8M		0.4707	-0.0177	-1.26	0.6083	-0.0202	-1.16	DR
L3M2XD	X	0.5525	0.0641	4.56	0.6544	0.0258	1.48	GD
LBKNV6		0.4697	-0.0187	-1.33	0.6207	-0.0079	-0.45	OE
MEMQPZ	*	0.5063	0.0179	1.27	0.6687	0.0401	2.29	OE
N2BR9D		0.4900	0.0016	0.11	0.6307	0.0021	0.12	WD
NG9WM2		0.4790	-0.0094	-0.67	0.6227	-0.0059	-0.34	OE
PPCDM7		0.4803	-0.0081	-0.57	0.6287	0.0001	0.01	IC
QY2CZX		0.4940	0.0056	0.40	0.6440	0.0155	0.88	WD
R2H9WM		0.5078	0.0194	1.38	0.6551	0.0266	1.52	DR
RAQY3B		0.4750	-0.0134	-0.95	0.6083	-0.0202	-1.16	OE
RDFYNL	X	0.5663	0.0779	5.53	0.6951	0.0665	3.80	OE
RVQXMN		0.4933	0.0049	0.35	0.6300	0.0015	0.08	OE
RXVQE2	X	0.3623	-0.1261	-8.96	0.4873	-0.1412	-8.07	OE
T76ETZ		0.4893	0.0009	0.07	0.6360	0.0075	0.43	WD
T8ZXU2		0.4787	-0.0097	-0.69	0.6290	0.0005	0.03	IC
TJTGBT		0.4923	0.0039	0.28	0.6327	0.0041	0.24	OE
TRPCBC		0.4873	-0.0011	-0.08	0.6143	-0.0142	-0.81	XX
TXFK2X		0.4857	-0.0027	-0.19	0.6303	0.0018	0.10	OE
V3W7CE		0.4942	0.0058	0.41	0.6296	0.0010	0.06	OE
VLU44M		0.4893	0.0009	0.07	0.6260	-0.0025	-0.15	WD
VTCJKY		0.4770	-0.0114	-0.81	0.6117	-0.0169	-0.96	OE
W3F6AD		0.4801	-0.0083	-0.59	0.6353	0.0067	0.38	OE
WF8PXG		0.5007	0.0123	0.87	0.6243	-0.0042	-0.24	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 184

Chemical Analysis Element #5 - Corrosion Resistant Steel - Percent SILICON (Si)

		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
WRU3RH		0.4940	0.0056	0.40	0.6330	0.0045	0.26	WD
XF2URF		0.4600	-0.0284	-2.02	0.5910	-0.0375	-2.15	OE
YEFPML		0.4900	0.0016	0.11	0.6317	0.0031	0.18	OE
YPY4N4		0.4697	-0.0187	-1.33	0.6067	-0.0219	-1.25	OE
YQEGEL		0.4823	-0.0061	-0.43	0.6243	-0.0042	-0.24	IC
YTHA9K	X	0.4933	0.0049	0.35	0.6900	0.0615	3.51	OE
Z8FRCN		0.5040	0.0156	1.11	0.6100	-0.0185	-1.06	XX
ZGLKRB		0.4693	-0.0191	-1.35	0.6100	-0.0185	-1.06	OE
ZTJBPC		0.4887	0.0003	0.02	0.6167	-0.0119	-0.68	OE

Summary Statistics

	Sample M35		Sample M36	
Grand Means	0.4884	Percent	0.6285	Percent
Stnd Dev Btwn Labs	0.0141	Percent	0.0175	Percent

Samples M35, M36 : AISI 310, two different heats

Statistics based on 49 of 56 reporting participants

Key to Method Codes Reported by Participants

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

Comments on Assigned Data Flags for Test #184

7K3W2M (X) - Data for both samples are high.

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

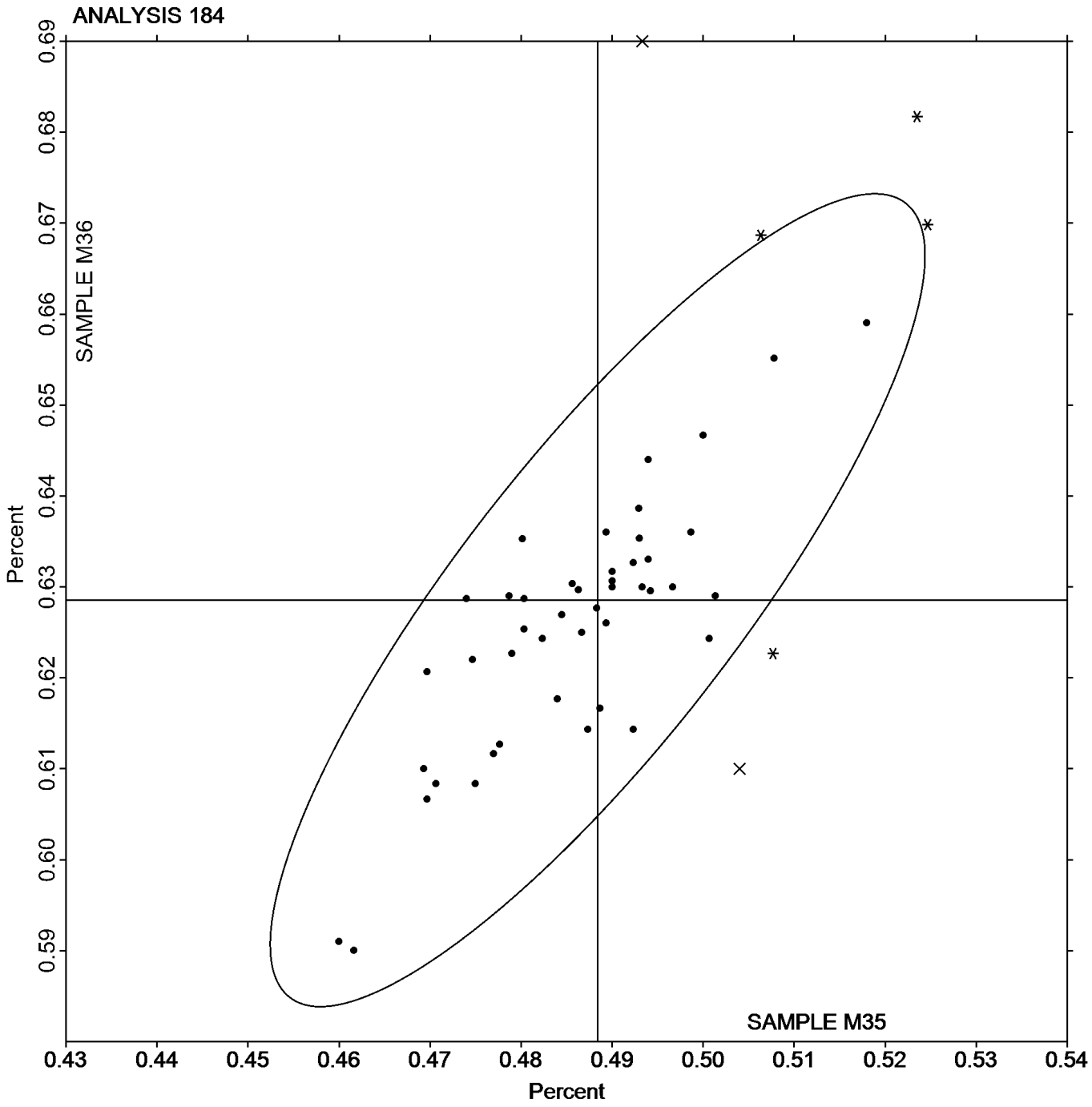
L3M2XD (X) - Data for sample M35 are high.

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

RXVQE2 (X) - Data for both samples are low. Inconsistent within the determinations of sample M35.

YTHA9K (X) - Data for sample M36 are high.

SAMPLE M35	SAMPLE M36
0.4884 Percent	0.6285 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 185

Chemical Analysis Element #6 - Corrosion Resistant Steel - Percent NITROGEN (N)

		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
263L4T		0.0560	0.0029	0.51	0.0573	0.0023	0.38	OE
7FD9RB		0.0605	0.0074	1.32	0.0615	0.0064	1.07	IR
7K3W2M		0.0490	-0.0041	-0.74	0.0510	-0.0040	-0.67	OE
7YHYGP	*	0.0676	0.0145	2.60	0.0676	0.0126	2.10	CO
8JLXJH		0.0537	0.0005	0.09	0.0570	0.0020	0.33	OE
96Z3P4		0.0435	-0.0096	-1.72	0.0442	-0.0108	-1.81	OE
D3FZNZ		0.0507	-0.0025	-0.44	0.0530	-0.0020	-0.34	OE
D6HRPK		0.0569	0.0038	0.68	0.0587	0.0037	0.62	CO
EJKNCK		0.0517	-0.0015	-0.26	0.0560	0.0010	0.16	OE
EZ84FG		0.0563	0.0031	0.56	0.0581	0.0031	0.51	CO
F3RBGP		0.0570	0.0039	0.69	0.0590	0.0040	0.66	XX
FT2ULT		0.0497	-0.0035	-0.62	0.0503	-0.0047	-0.79	OE
G2ALQG		0.0551	0.0020	0.35	0.0576	0.0026	0.43	CI
G43HDQ	X	0.0850	0.0319	5.70	0.0842	0.0292	4.86	OE
GYQKWV		0.0571	0.0039	0.70	0.0589	0.0038	0.64	OE
HJPERQ		0.0563	0.0032	0.57	0.0590	0.0040	0.66	CI
J7HQG8	X	0.0700	0.0169	3.02	0.0777	0.0226	3.77	OE
MEMQPZ		0.0527	-0.0005	-0.08	0.0533	-0.0017	-0.28	OE
NG9WM2		0.0462	-0.0069	-1.24	0.0467	-0.0083	-1.39	OE
PPCDM7		0.0510	-0.0021	-0.38	0.0547	-0.0004	-0.06	CO
RDFYNL		0.0495	-0.0037	-0.66	0.0507	-0.0043	-0.72	OE
RXVQE2	X	0.0400	-0.0131	-2.35	0.0500	-0.0050	-0.84	OE
T76ETZ		0.0560	0.0029	0.51	0.0600	0.0050	0.83	CO
TJTGBT		0.0563	0.0031	0.56	0.0590	0.0040	0.67	CI
TRPCBC		0.0550	0.0019	0.33	0.0560	0.0010	0.16	XX
TXFK2X		0.0495	-0.0036	-0.65	0.0537	-0.0014	-0.23	OE
V3W7CE		0.0399	-0.0132	-2.36	0.0415	-0.0135	-2.26	OE
VLU44M		0.0553	0.0022	0.39	0.0569	0.0018	0.30	CI
VTCJKY		0.0454	-0.0078	-1.39	0.0455	-0.0096	-1.60	OE
W3F6AD		0.0549	0.0017	0.31	0.0585	0.0035	0.58	CO
WF8PXG		0.0657	0.0125	2.24	0.0563	0.0013	0.22	OE
WRU3RH		0.0563	0.0032	0.57	0.0583	0.0033	0.55	XX
YEFPML	*	0.0443	-0.0088	-1.58	0.0427	-0.0124	-2.06	CI
YPY4N4		0.0557	0.0025	0.46	0.0597	0.0046	0.77	CO
YQEGEL		0.0583	0.0052	0.92	0.0599	0.0049	0.81	XX

Summary Statistics

	Sample M35		Sample M36	
Grand Means	0.0531	Percent	0.0550	Percent
Stnd Dev Btwn Labs	0.0056	Percent	0.0060	Percent

Samples M35, M36 : AISI 310, two different heats

Statistics based on 31 of 35 reporting participants

Key to Method Codes Reported by Participants

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

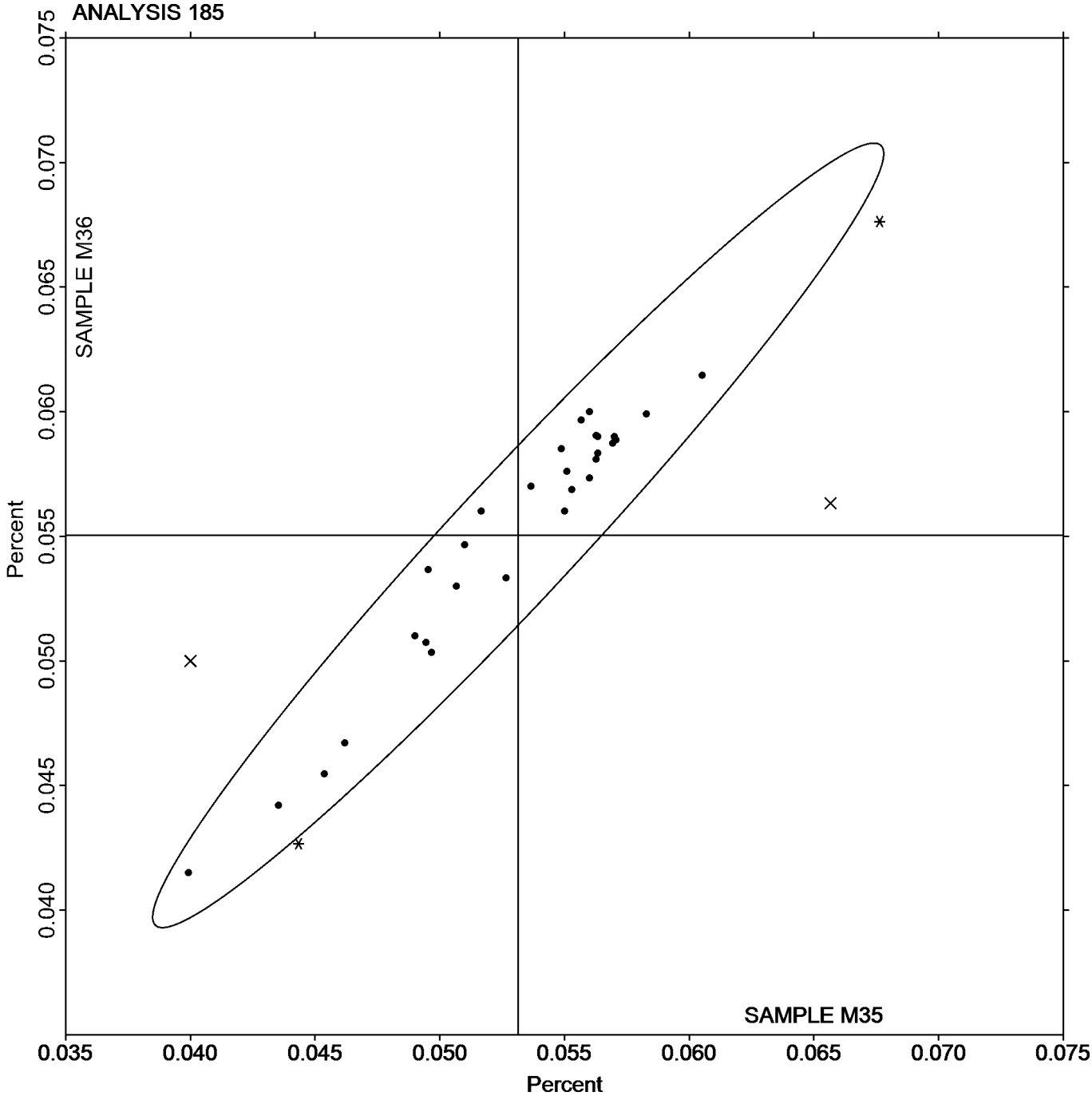
Comments on Assigned Data Flags for Test #185

G43HDQ (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

J7HQG8 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

RXVQE2 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.

SAMPLE M35	SAMPLE M36
0.0531 Percent	0.0550 Percent



		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
263L4T		20.18	0.07	0.38	19.19	0.02	0.14	XR
2YH8WE		20.19	0.08	0.46	19.23	0.07	0.40	OE
3P6WML		20.15	0.04	0.25	19.23	0.06	0.37	DR
4Q46NJ		20.07	-0.04	-0.24	19.23	0.06	0.37	OE
64HQKH		20.10	-0.01	-0.06	19.10	-0.06	-0.35	GD
7FD9RB		19.99	-0.12	-0.67	19.14	-0.02	-0.13	WD
7K3W2M		19.80	-0.31	-1.75	18.80	-0.36	-2.04	OE
7PGHXZ		19.90	-0.21	-1.19	19.17	0.00	0.03	OE
7YHYGP	X	19.59	-0.52	-2.94	19.01	-0.15	-0.86	OE
8JLXJH		20.18	0.07	0.40	19.18	0.02	0.12	OE
8VVZHL	*	19.80	-0.31	-1.75	18.70	-0.46	-2.61	GD
96Z3P4		19.79	-0.32	-1.80	19.07	-0.10	-0.54	OE
D3FZNZ		20.14	0.03	0.19	19.22	0.06	0.35	OE
D6HRPK		20.06	-0.05	-0.29	19.11	-0.06	-0.32	IC
DPQZWX		20.17	0.06	0.32	19.23	0.07	0.40	DR
EJKNCK		20.14	0.03	0.19	19.10	-0.06	-0.35	OE
EZ84FG	*	20.64	0.53	3.02	19.50	0.34	1.91	WD
F3RBGP		20.16	0.05	0.28	19.20	0.04	0.20	XR
FT2ULT		20.11	0.00	-0.02	19.18	0.02	0.10	WD
G2ALQG		20.09	-0.02	-0.09	19.18	0.02	0.11	WD
G43HDQ		20.14	0.03	0.16	19.17	0.01	0.07	OE
GYQKWV		19.93	-0.18	-1.03	18.99	-0.17	-0.98	OE
HJPERQ	*	20.59	0.48	2.70	19.65	0.49	2.75	OE
J7HQG8		20.13	0.02	0.13	19.12	-0.04	-0.22	OE
JFAXL8		20.25	0.14	0.79	19.22	0.06	0.33	ED
K9JCKX		20.04	-0.07	-0.42	19.08	-0.08	-0.45	WC
KMJQ8M		20.02	-0.09	-0.49	19.15	-0.01	-0.07	DR
L3M2XD	X	19.43	-0.68	-3.83	18.55	-0.62	-3.47	GD
LBKNV6		19.69	-0.42	-2.39	18.75	-0.42	-2.34	OE
MEMQPZ		20.21	0.10	0.57	19.38	0.22	1.25	OE
N2BR9D		20.08	-0.03	-0.15	19.15	-0.01	-0.05	WD
NG9WM2		20.29	0.18	1.02	19.16	-0.01	-0.03	OE
PPCDM7		20.15	0.04	0.23	19.12	-0.04	-0.24	IC
QY2CZX		20.09	-0.02	-0.13	19.12	-0.04	-0.22	WD
R2H9WM	*	19.94	-0.17	-0.98	19.33	0.17	0.93	DR
RAQY3B	X	18.98	-1.13	-6.39	18.20	-0.97	-5.44	OE
RDFYNL		19.79	-0.32	-1.80	18.89	-0.27	-1.51	OE
RVQXMN		20.10	-0.01	-0.04	19.24	0.08	0.44	OE
RXVQE2	X	19.40	-0.71	-4.04	18.37	-0.80	-4.49	OE
T76ETZ		20.07	-0.04	-0.23	19.19	0.02	0.14	WD
T8ZXU2		20.18	0.07	0.38	19.23	0.07	0.40	WC
TJTGBT		20.06	-0.05	-0.28	19.09	-0.07	-0.41	OE
TRPCBC		20.08	-0.03	-0.17	19.09	-0.08	-0.42	XX
TXFK2X		20.18	0.07	0.42	19.22	0.06	0.33	OE
V3W7CE	*	20.25	0.14	0.77	19.00	-0.16	-0.89	OE
VLU44M		20.14	0.03	0.17	19.23	0.06	0.37	WD
VTCJKY	*	20.31	0.20	1.13	19.59	0.43	2.41	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 186

Chemical Analysis Element #7 - Corrosion Resistant Steel - Percent NICKEL (Ni)

		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
W3F6AD		20.19	0.08	0.47	19.15	-0.02	-0.09	OE
WF8PXG		20.03	-0.08	-0.43	19.03	-0.13	-0.74	OE
WRU3RH		20.18	0.07	0.38	19.22	0.06	0.33	WD
XF2URF	*	20.55	0.44	2.51	19.57	0.41	2.30	OE
YEFPML		20.09	-0.02	-0.13	19.10	-0.06	-0.35	OE
YPY4N4		20.13	0.02	0.09	19.16	0.00	0.02	XR
YQEGEL		20.20	0.09	0.51	19.10	-0.06	-0.35	IC
YTHA9K		20.03	-0.08	-0.43	19.10	-0.06	-0.35	OE
Z8FRCN		19.94	-0.17	-0.96	18.95	-0.21	-1.20	XX
ZGLKRB		20.06	-0.05	-0.26	19.04	-0.13	-0.71	OE
ZTJBPC		20.16	0.05	0.31	19.40	0.24	1.36	OE

Summary Statistics

	Sample M35		Sample M36	
Grand Means	20.11	Percent	19.16	Percent
Stnd Dev Btwn Labs	0.18	Percent	0.18	Percent

Samples M35, M36 : AISI 310, two different heats

Statistics based on 54 of 58 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)	WC	Wet Chemistry
WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)	XR	X-Ray Fluorescence - ED or WD not specified
XX	Please Indicate Method Used for Current Element		

Comments on Assigned Data Flags for Test #186

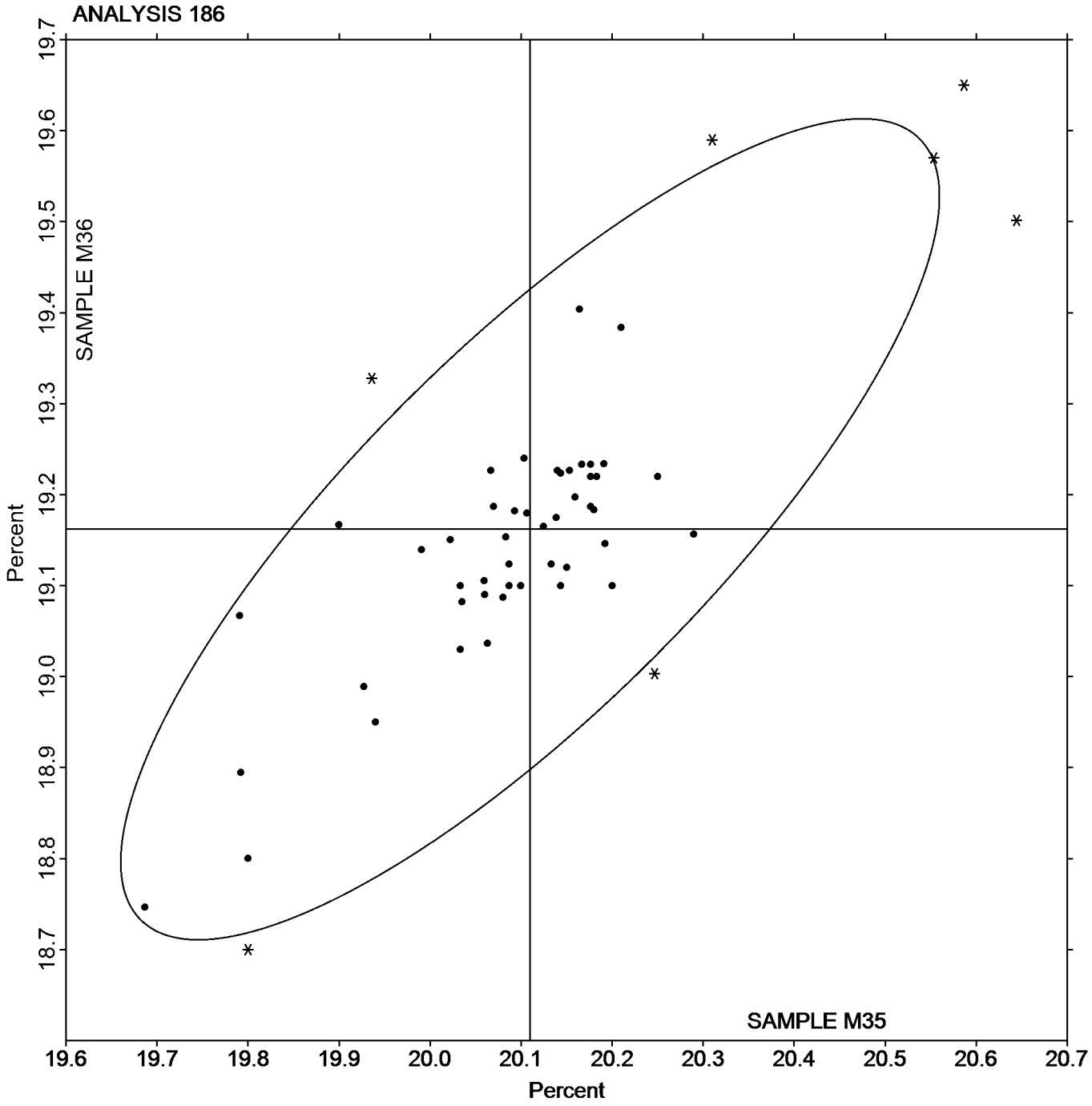
7YHYGP (X) - Data for sample M35 are low.

L3M2XD (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample M36.

RAQY3B (X) - Data for both samples are low. Possible Systematic Error.

RXVQE2 (X) - Data for both samples are low. Possible Systematic Error.

SAMPLE M35	SAMPLE M36
20.11 Percent	19.16 Percent



		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
263L4T		24.50	0.08	0.46	24.87	0.11	0.54	XR
2YH8WE		24.34	-0.08	-0.46	24.71	-0.06	-0.28	OE
3P6WML		24.46	0.04	0.23	24.79	0.03	0.13	DR
4Q46NJ		24.33	-0.09	-0.52	24.74	-0.02	-0.10	OE
64HQKH		24.53	0.12	0.67	24.90	0.14	0.67	GD
7FD9RB		24.46	0.05	0.26	24.60	-0.16	-0.81	WD
7K3W2M	X	24.74	0.32	1.86	25.42	0.66	3.24	OE
7PGHXZ		24.53	0.12	0.67	24.93	0.17	0.84	XX
7YHYGP		24.46	0.05	0.27	24.71	-0.05	-0.25	OE
8JLXJH		24.47	0.05	0.28	24.82	0.06	0.28	OE
8VVZHL		24.57	0.15	0.86	25.00	0.24	1.17	GD
96Z3P4	*	24.01	-0.41	-2.38	24.23	-0.54	-2.64	OE
D3FZNZ		24.61	0.19	1.09	24.85	0.08	0.41	OE
D6HRPK		24.40	-0.02	-0.11	24.75	-0.02	-0.08	IC
DPQZWX		24.47	0.05	0.28	24.80	0.03	0.16	DR
EJKNCK		24.48	0.06	0.34	24.87	0.11	0.52	OE
EZ84FG		24.56	0.15	0.84	24.86	0.10	0.49	XX
F3RBGP		24.54	0.12	0.70	24.94	0.18	0.87	XR
FT2ULT		24.38	-0.04	-0.22	24.79	0.02	0.12	WD
G2ALQG		24.42	0.00	0.00	24.84	0.07	0.35	WD
G43HDQ		24.26	-0.16	-0.91	24.60	-0.16	-0.79	OE
GYQKWV		24.83	0.41	2.39	25.17	0.40	1.98	OE
HJPERQ		24.46	0.04	0.25	24.80	0.04	0.18	XX
J7HQG8		23.98	-0.43	-2.51	24.33	-0.44	-2.15	OE
JFAXL8		24.47	0.05	0.30	24.62	-0.14	-0.69	ED
K9JCKX	X	23.44	-0.98	-5.64	23.80	-0.96	-4.74	WC
KMJQ8M		24.46	0.05	0.26	24.88	0.11	0.56	DR
L3M2XD	*	24.93	0.51	2.94	25.38	0.61	3.02	GD
LBKNV6	*	23.98	-0.44	-2.52	24.36	-0.40	-1.99	OE
MEMQPZ		24.13	-0.29	-1.68	24.36	-0.40	-1.97	OE
N2BR9D		24.40	-0.02	-0.10	24.67	-0.09	-0.46	WD
NG9WM2		24.67	0.26	1.48	24.91	0.15	0.74	OE
PPCDM7		24.49	0.07	0.42	24.87	0.11	0.52	IC
QY2CZX		24.44	0.02	0.11	24.79	0.02	0.11	WD
R2H9WM		24.32	-0.10	-0.59	24.68	-0.08	-0.39	DR
RAQY3B	X	25.76	1.34	7.73	26.19	1.43	7.05	OE
RDFYNL		24.21	-0.21	-1.20	24.48	-0.29	-1.41	OE
RVQXMN		24.50	0.08	0.46	24.74	-0.02	-0.12	OE
RXVQE2		24.20	-0.22	-1.26	24.50	-0.26	-1.28	OE
T76ETZ		24.44	0.02	0.11	24.98	0.22	1.07	WD
T8ZXU2		24.43	0.02	0.09	24.89	0.13	0.64	TI
TJTGBT	X	19.08	-5.33	-30.79	24.83	0.06	0.31	OE
TRPCBC		24.45	0.03	0.19	24.89	0.13	0.64	XX
TXFK2X		24.39	-0.03	-0.16	24.79	0.02	0.11	OE
V3W7CE	*	24.57	0.16	0.90	25.15	0.39	1.90	OE
VLU44M		24.44	0.02	0.13	24.78	0.02	0.08	WD
VTCJKY		24.28	-0.13	-0.77	24.54	-0.22	-1.09	OE

		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
W3F6AD		24.46	0.04	0.23	24.80	0.04	0.19	OE
WF8PXG		24.22	-0.20	-1.16	24.64	-0.12	-0.61	OE
WRU3RH		24.38	-0.04	-0.22	24.75	-0.01	-0.05	WD
YEFPML		24.41	-0.01	-0.04	24.76	0.00	0.00	OE
YPY4N4		24.36	-0.06	-0.34	24.69	-0.07	-0.34	XR
YQEGEL		24.53	0.12	0.67	24.78	0.02	0.10	TI
YTHA9K		24.47	0.05	0.28	24.80	0.04	0.18	OE
Z8FRCN		24.28	-0.14	-0.79	24.66	-0.10	-0.51	XX
ZGLKRB		24.37	-0.04	-0.25	24.76	0.00	-0.02	OE
ZTJBPC		24.42	0.01	0.04	24.66	-0.11	-0.52	OE

Summary Statistics

	Sample M35		Sample M36	
Grand Means	24.42	Percent	24.76	Percent
Stnd Dev Btwn Labs	0.17	Percent	0.20	Percent

Samples M35, M36 : AISI 310, two different heats

Statistics based on 53 of 57 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)	TI	Titrimetry
WC	Wet Chemistry	WD	X-Ray Fluorescence - Wavelength Dispersive (WDX)
XR	X-Ray Fluorescence - ED or WD not specified	XX	Please Indicate Method Used for Current Element

Comments on Assigned Data Flags for Test #187

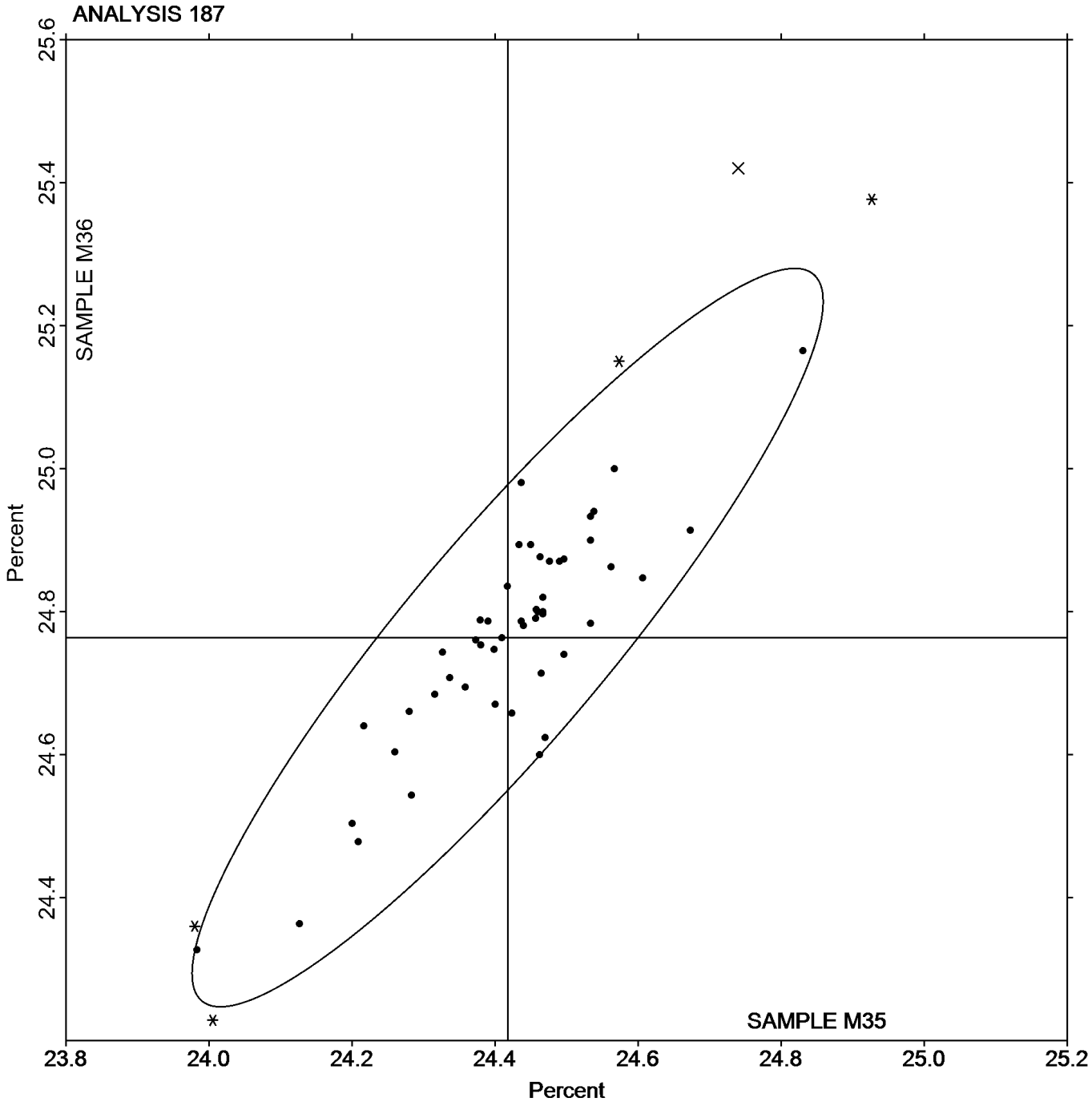
7K3W2M (X) - Data for sample M36 are high.

K9JCKX (X) - Data for both samples are low. Possible Systematic Error.

RAQY3B (X) - Data for both samples are high. Possible Systematic Error.

TJTGBT (X) - Data for sample M35 are low.

SAMPLE M35	SAMPLE M36
24.42 Percent	24.76 Percent



		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
263L4T		0.1407	0.0025	0.33	0.5920	0.0128	0.55	XR
2YH8WE		0.1393	0.0012	0.16	0.5627	-0.0166	-0.71	OE
3P6WML		0.1360	-0.0021	-0.28	0.5677	-0.0116	-0.50	DR
4Q46NJ		0.1347	-0.0035	-0.45	0.5900	0.0108	0.46	XX
64HQKH		0.1353	-0.0028	-0.37	0.5650	-0.0142	-0.61	GD
7FD9RB		0.1377	-0.0005	-0.06	0.5877	0.0084	0.36	WD
7K3W2M	X	0.1020	-0.0361	-4.72	0.5400	-0.0392	-1.68	OE
7PGHXZ		0.1200	-0.0181	-2.37	0.5533	-0.0259	-1.11	OE
7YHYGP		0.1421	0.0040	0.52	0.5888	0.0095	0.41	OE
8JLXJH		0.1337	-0.0045	-0.58	0.5570	-0.0222	-0.95	OE
8VVZHL		0.1547	0.0165	2.16	0.6047	0.0254	1.09	GD
96Z3P4		0.1410	0.0029	0.37	0.5940	0.0148	0.63	OE
D3FZNZ		0.1207	-0.0175	-2.28	0.6153	0.0361	1.55	OE
D6HRPK		0.1421	0.0039	0.51	0.5920	0.0128	0.55	IC
DPQZWX		0.1363	-0.0018	-0.24	0.5677	-0.0116	-0.50	DR
EJKNCK		0.1333	-0.0048	-0.63	0.5660	-0.0132	-0.57	OE
EZ84FG		0.1340	-0.0041	-0.54	0.5763	-0.0029	-0.12	WD
F3RBGP		0.1400	0.0019	0.24	0.5957	0.0164	0.70	OE
FT2ULT		0.1370	-0.0011	-0.15	0.5857	0.0064	0.28	WD
G2ALQG		0.1420	0.0039	0.50	0.5947	0.0154	0.66	WD
G43HDQ		0.1251	-0.0130	-1.70	0.5626	-0.0166	-0.71	OE
GYQKWV	X	0.1107	-0.0275	-3.59	0.6680	0.0888	3.81	OE
HJPERQ		0.1357	-0.0025	-0.32	0.5733	-0.0059	-0.25	OE
J7HQG8	*	0.1593	0.0212	2.77	0.6250	0.0458	1.96	OE
JFAXL8		0.1457	0.0075	0.98	0.5733	-0.0059	-0.25	ED
KMJQ8M	X	0.1350	-0.0031	-0.41	0.4210	-0.1582	-6.79	DR
L3M2XD		0.1517	0.0135	1.77	0.6120	0.0328	1.41	GD
LBKNV6	X	0.1767	0.0385	5.03	0.6073	0.0281	1.20	OE
MEMQPZ		0.1423	0.0042	0.55	0.5987	0.0194	0.83	OE
N2BR9D		0.1343	-0.0038	-0.50	0.5847	0.0054	0.23	WD
NG9WM2		0.1380	-0.0001	-0.02	0.5663	-0.0129	-0.55	OE
PPCDM7		0.1327	-0.0055	-0.71	0.5753	-0.0039	-0.17	IC
QY2CZX		0.1370	-0.0011	-0.15	0.5790	-0.0002	-0.01	WD
R2H9WM		0.1211	-0.0171	-2.23	0.5396	-0.0396	-1.70	DR
RAQY3B		0.1530	0.0149	1.94	0.6040	0.0248	1.06	OE
RDFYNL		0.1379	-0.0002	-0.03	0.5628	-0.0165	-0.71	OE
RVQXMN	X	0.1167	-0.0215	-2.80	0.6067	0.0274	1.18	OE
RXVQE2	X	0.1600	0.0219	2.86	0.5447	-0.0346	-1.48	OE
T76ETZ		0.1350	-0.0031	-0.41	0.5840	0.0048	0.20	WD
T8ZXU2		0.1360	-0.0021	-0.28	0.5553	-0.0239	-1.03	IC
TJTGBT		0.1353	-0.0028	-0.37	0.5800	0.0008	0.03	OE
TRPCBC		0.1350	-0.0031	-0.41	0.5820	0.0028	0.12	XX
TXFK2X		0.1347	-0.0035	-0.45	0.5780	-0.0012	-0.05	OE
V3W7CE		0.1278	-0.0103	-1.35	0.5221	-0.0571	-2.45	OE
VLU44M		0.1357	-0.0025	-0.32	0.5673	-0.0119	-0.51	WD
VTCJKY	X	0.1387	0.0005	0.07	0.4967	-0.0826	-3.54	OE
W3F6AD		0.1347	-0.0034	-0.45	0.5636	-0.0157	-0.67	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 188

Chemical Analysis Element #9 - Corrosion Resistant Steel - Percent MOLYBDENUM (Mo)

Cycle 114
2nd Qtr 2016

		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
WF8PXG	*	0.1417	0.0035	0.46	0.5393	-0.0399	-1.71	OE
WRU3RH		0.1383	0.0002	0.03	0.5890	0.0098	0.42	WD
XF2URF		0.1523	0.0142	1.85	0.6267	0.0474	2.03	OE
YEFPML		0.1353	-0.0028	-0.37	0.5800	0.0008	0.03	OE
YPY4N4		0.1327	-0.0055	-0.71	0.5763	-0.0029	-0.13	XR
YQEGEL		0.1369	-0.0013	-0.17	0.5653	-0.0139	-0.60	IC
YTHA9K		0.1300	-0.0081	-1.06	0.5433	-0.0359	-1.54	OE
Z8FRCN		0.1450	0.0069	0.90	0.5700	-0.0092	-0.40	XX
ZGLKRB		0.1430	0.0049	0.64	0.6233	0.0441	1.89	OE
ZTJBPC	*	0.1457	0.0075	0.98	0.6400	0.0608	2.61	OE

Summary Statistics

	Sample M35		Sample M36	
Grand Means	0.1381	Percent	0.5792	Percent
Stnd Dev Btwn Labs	0.0077	Percent	0.0233	Percent

Samples M35, M36 : AISI 310, two different heats

Statistics based on 49 of 57 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 #188

7K3W2M (X) - Data for sample M35 are low.

GYQKWV (X) - Data for sample M35 are low and data for sample M36 are high.

KMJQ8M (X) - Data for sample M36 are low.

LBKNV6 (X) - Data for sample M35 are high.

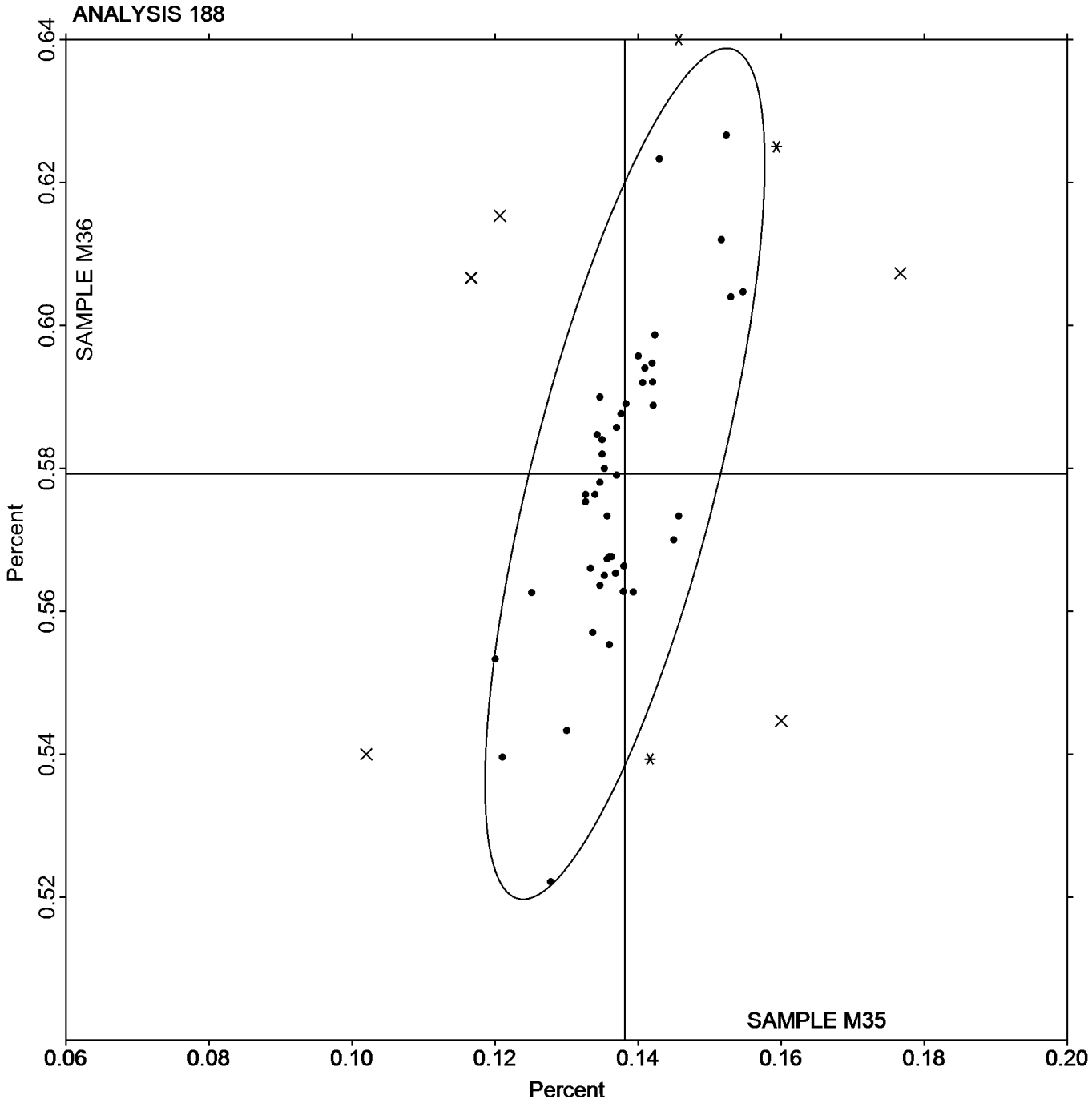
RVQXMN (X) - Data for sample M35 are low. Inconsistent within the determinations of both samples.

RXVQE2 (X) - Data for sample M35 are high.

VTCJKY (X) - Data for sample M36 are low.

SAMPLE M35
0.1381 Percent

SAMPLE M36
0.5792 Percent



		Sample M35			Sample M36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
263L4T		0.1453	-0.0001	-0.01	0.0917	-0.0004	-0.07	XR
2YH8WE		0.1457	0.0002	0.03	0.0883	-0.0037	-0.72	OE
3P6WML		0.1430	-0.0024	-0.28	0.0913	-0.0007	-0.14	DR
4Q46NJ		0.1483	0.0029	0.34	0.0920	0.0000	-0.01	OE
64HQKH		0.1483	0.0029	0.34	0.0910	-0.0010	-0.20	GD
7FD9RB		0.1453	-0.0001	-0.01	0.0887	-0.0034	-0.66	WD
7K3W2M		0.1350	-0.0104	-1.22	0.0830	-0.0090	-1.76	OE
7YHYGP		0.1374	-0.0080	-0.94	0.0855	-0.0066	-1.27	OE
8JLXJH		0.1393	-0.0061	-0.71	0.0883	-0.0037	-0.72	OE
8VVZHL		0.1550	0.0096	1.12	0.0980	0.0060	1.16	XX
96Z3P4		0.1412	-0.0043	-0.50	0.0904	-0.0016	-0.32	OE
D3FZNZ		0.1420	-0.0034	-0.40	0.0940	0.0020	0.38	OE
D6HRPK		0.1556	0.0102	1.19	0.0983	0.0063	1.21	IC
DPQZWX		0.1440	-0.0014	-0.17	0.0913	-0.0007	-0.14	DR
EJKNCK		0.1380	-0.0074	-0.87	0.0880	-0.0040	-0.78	OE
EZ84FG		0.1643	0.0189	2.21	0.1013	0.0093	1.80	XX
F3RBGP		0.1460	0.0006	0.07	0.0920	0.0000	-0.01	OE
FT2ULT		0.1377	-0.0078	-0.91	0.0880	-0.0040	-0.78	OE
G2ALQG		0.1510	0.0056	0.65	0.0930	0.0010	0.19	WD
G43HDQ		0.1482	0.0028	0.33	0.0933	0.0012	0.24	OE
GYQKWV	X	0.1987	0.0532	6.23	0.1367	0.0446	8.66	OE
HJPERQ		0.1423	-0.0031	-0.36	0.0913	-0.0007	-0.14	OE
J7HQG8		0.1320	-0.0134	-1.57	0.0833	-0.0087	-1.69	OE
KMJQ8M		0.1383	-0.0071	-0.83	0.0883	-0.0037	-0.72	DR
L3M2XD		0.1403	-0.0051	-0.60	0.0800	-0.0120	-2.33	GD
LBKNV6		0.1460	0.0006	0.07	0.0908	-0.0012	-0.23	OE
MEMQPZ		0.1513	0.0059	0.69	0.0957	0.0036	0.70	OE
N2BR9D		0.1447	-0.0008	-0.09	0.0947	0.0026	0.51	OE
NG9WM2		0.1487	0.0032	0.38	0.0963	0.0043	0.83	OE
PPCDM7		0.1387	-0.0068	-0.79	0.0877	-0.0044	-0.85	IC
QY2CZX		0.1470	0.0016	0.18	0.0887	-0.0034	-0.66	WD
RAQY3B		0.1517	0.0062	0.73	0.0997	0.0076	1.48	OE
RDFYNL		0.1557	0.0102	1.20	0.1013	0.0092	1.80	OE
RVQXMN	X	0.1027	-0.0428	-5.01	0.0647	-0.0274	-5.31	OE
RXVQE2	*	0.1267	-0.0188	-2.20	0.0847	-0.0074	-1.43	OE
T76ETZ		0.1520	0.0066	0.77	0.0950	0.0030	0.57	WD
T8ZXU2		0.1407	-0.0048	-0.56	0.0910	-0.0010	-0.20	IC
TJTGBT		0.1650	0.0196	2.29	0.1040	0.0120	2.32	OE
TRPCBC		0.1443	-0.0011	-0.13	0.0943	0.0023	0.44	XX
TXFK2X		0.1423	-0.0031	-0.36	0.0917	-0.0004	-0.07	OE
V3W7CE		0.1390	-0.0065	-0.76	0.0911	-0.0009	-0.18	OE
VLU44M		0.1537	0.0082	0.96	0.0957	0.0036	0.70	WD
VTCJKY		0.1423	-0.0031	-0.36	0.0860	-0.0060	-1.17	OE
W3F6AD		0.1429	-0.0026	-0.30	0.0907	-0.0013	-0.26	OE
WF8PXG		0.1297	-0.0158	-1.85	0.0823	-0.0097	-1.88	OE
WRU3RH		0.1523	0.0069	0.81	0.0937	0.0016	0.32	WD
XF2URF		0.1310	-0.0144	-1.69	0.0860	-0.0060	-1.17	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 189

Chemical Analysis Element #10 - Corrosion Resistant Steel - Percent
VANADIUM (V)

WebCode	Data Flag	Sample M35 Lab Mean	Sample M35 Diff. from Grand Mean	Sample M35 CPV	Sample M36 Lab Mean	Sample M36 Diff. from Grand Mean	Sample M36 CPV	Method
YEFPML		0.1657	0.0202	2.37	0.1043	0.0123	2.39	OE
YPY4N4		0.1477	0.0022	0.26	0.0963	0.0043	0.83	OE
YQEGEL		0.1560	0.0106	1.24	0.0947	0.0026	0.51	IC
Z8FRCN	M	0.1520	0.0066	0.77	No Data Reported			XX
ZTJBPC		0.1423	-0.0031	-0.36	0.0913	-0.0007	-0.14	OE

Summary Statistics

	Sample M35		Sample M36	
Grand Means	0.1454	Percent	0.0920	Percent
Stnd Dev Btwn Labs	0.0085	Percent	0.0052	Percent

Samples M35, M36 : AISI 310, two different heats

Statistics based on 48 of 52 reporting participants

Key to Method Codes Reported by Participants

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

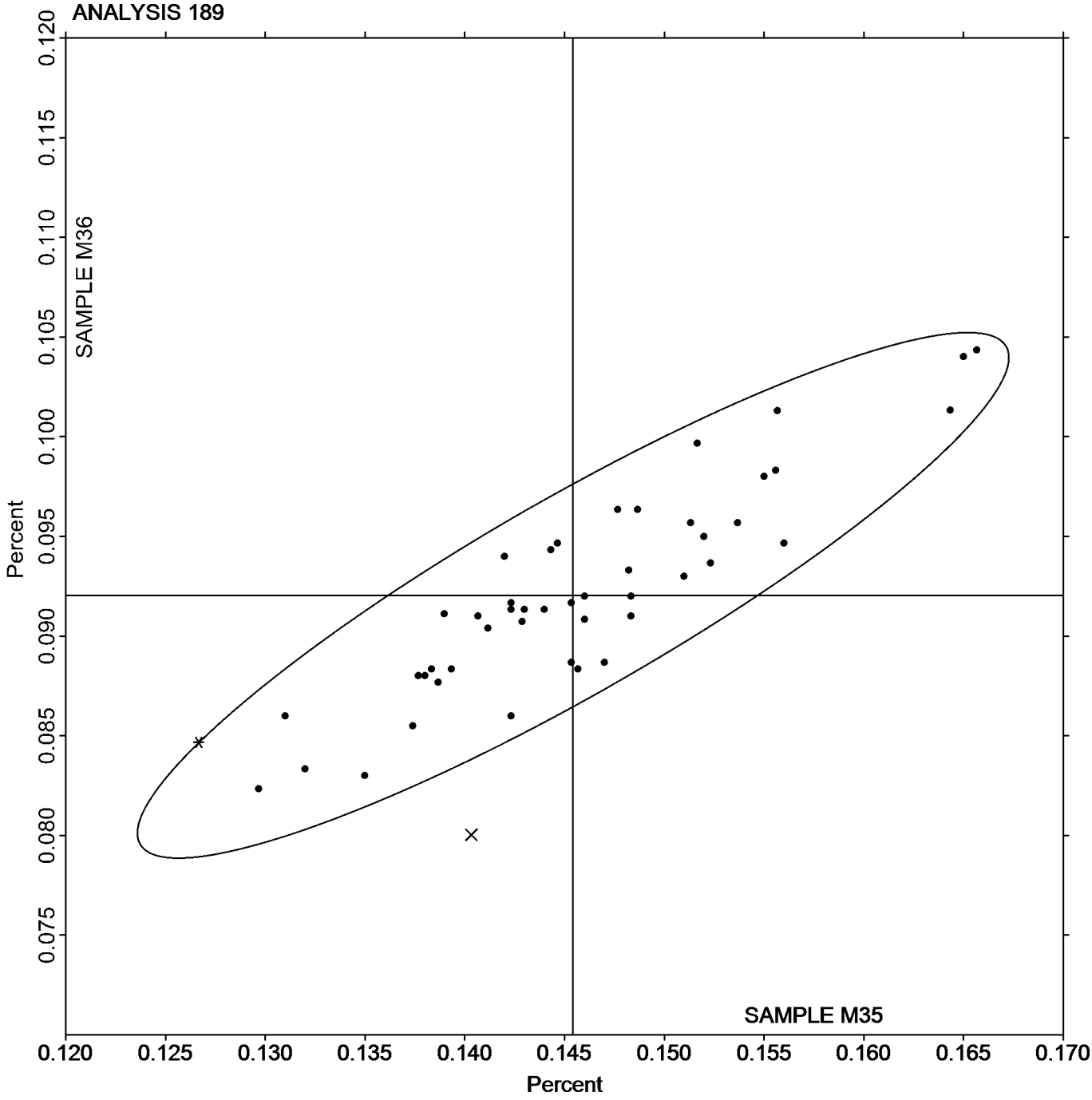
Comments on Assigned Data Flags for Test #189

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

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

Z8FRCN (M) - Participant did not submit data for sample M36.

SAMPLE M35	SAMPLE M36
0.1454 Percent	0.0920 Percent



		Sample A35			Sample A36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
299T3D		0.0180	-0.0007	-0.20	0.0170	-0.0006	-0.17	OE
4KBADY		0.0169	-0.0018	-0.50	0.0159	-0.0017	-0.50	OE
7K3W2M		0.0200	0.0013	0.35	0.0200	0.0024	0.71	OE
7YHYGP		0.0180	-0.0007	-0.20	0.0172	-0.0004	-0.10	OE
8VVZHL		0.0183	-0.0004	-0.11	0.0177	0.0001	0.03	GD
9TA7PR	*	0.0310	0.0123	3.33	0.0287	0.0111	3.26	OE
CHFA38		0.0194	0.0007	0.19	0.0173	-0.0002	-0.07	GD
CJNKJH		0.0175	-0.0012	-0.32	0.0162	-0.0013	-0.39	OE
DQLJYY		0.0183	-0.0004	-0.11	0.0170	-0.0006	-0.17	XX
KFKDY7		0.0164	-0.0023	-0.62	0.0155	-0.0020	-0.60	OE
NM9H44		0.0172	-0.0015	-0.41	0.0161	-0.0014	-0.42	OE
NQ8LA6		0.0160	-0.0027	-0.74	0.0152	-0.0024	-0.70	OE
QY2CZX		0.0174	-0.0013	-0.36	0.0160	-0.0016	-0.46	OE
YTHA9K		0.0176	-0.0011	-0.30	0.0161	-0.0014	-0.42	OE

Summary Statistics

	Sample A35		Sample A36	
Grand Means	0.0187	Percent	0.0176	Percent
Stnd Dev Btwn Labs	0.0037	Percent	0.0034	Percent

Samples A35, A36 : AA6061, two different heats

Statistics based on 14 of 14 reporting participants

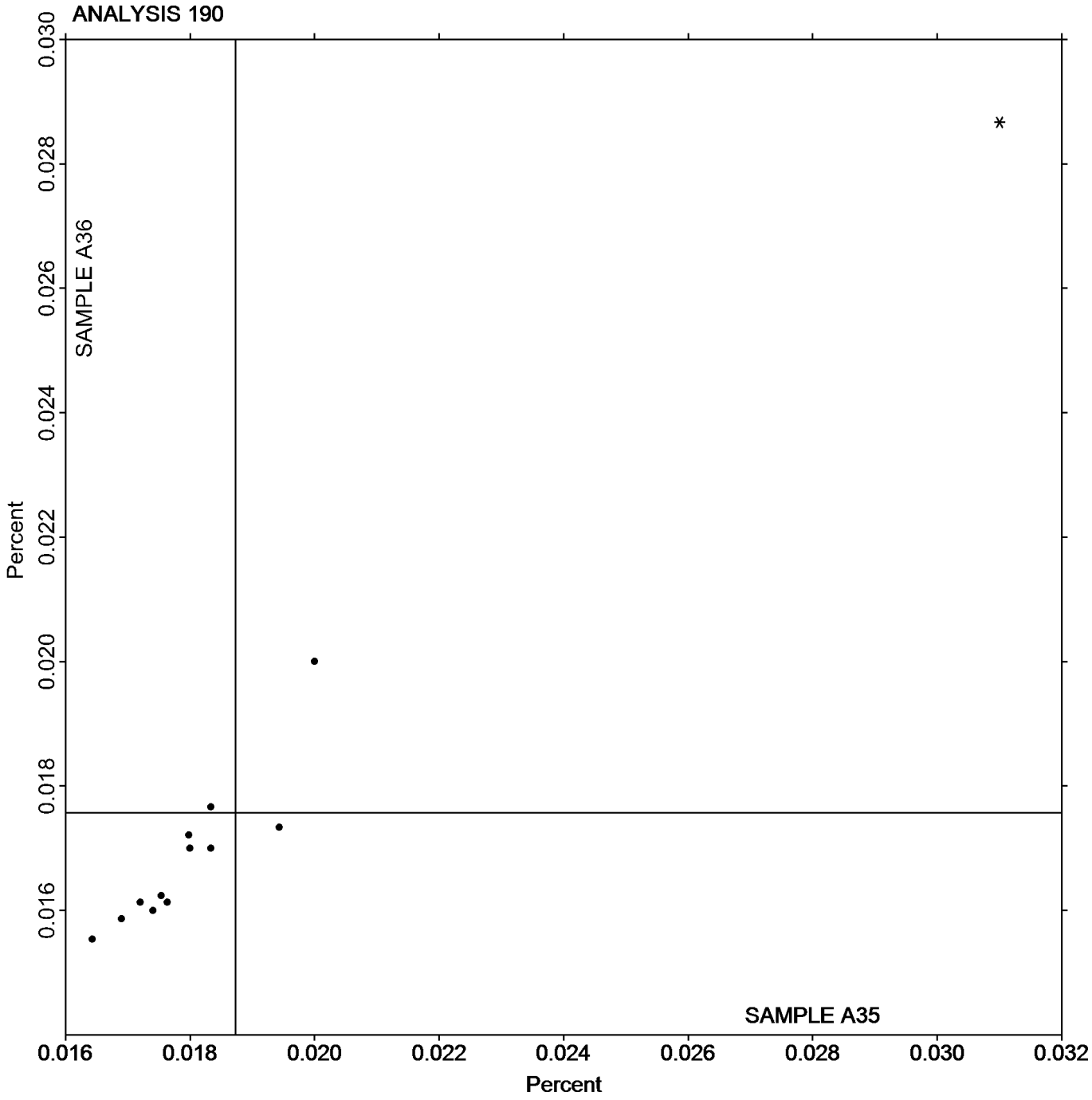
Key to Method Codes Reported by Participants

GD Spectrometry - Glow Discharge (GDS)

OE Spectrometry - Optical Emission (OES)

XX Please Indicate Method Used for Current Element

SAMPLE A35	SAMPLE A36
0.0187 Percent	0.0176 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 191

Chemical Analysis Element #2 - Aluminum Alloy - Percent
COPPER (Cu)

		Sample A35			Sample A36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
299T3D		0.3073	-0.0134	-0.35	0.2690	-0.0083	-0.21	OE
4KBADY		0.3136	-0.0072	-0.18	0.2800	0.0027	0.07	OE
7K3W2M	*	0.4480	0.1272	3.29	0.4143	0.1370	3.38	OE
7YHYGP		0.3143	-0.0064	-0.17	0.2685	-0.0089	-0.22	OE
8VVZHL		0.3233	0.0026	0.07	0.2730	-0.0043	-0.11	GD
9TA7PR		0.2700	-0.0508	-1.31	0.2350	-0.0423	-1.05	OE
CHFA38		0.3020	-0.0188	-0.48	0.2580	-0.0193	-0.48	GD
CJNKJH		0.3187	-0.0021	-0.05	0.2751	-0.0022	-0.05	XX
DQLJYY		0.3427	0.0219	0.57	0.2897	0.0123	0.30	XX
GE38WC		0.3057	-0.0150	-0.39	0.2609	-0.0164	-0.41	IC
KFKDY7		0.3328	0.0121	0.31	0.2895	0.0121	0.30	OE
NM9H44		0.3156	-0.0052	-0.13	0.2737	-0.0036	-0.09	OE
NQ8LA6		0.3087	-0.0121	-0.31	0.2497	-0.0277	-0.68	OE
QY2CZX		0.3007	-0.0201	-0.52	0.2580	-0.0193	-0.48	OE
YTHA9K		0.3080	-0.0128	-0.33	0.2657	-0.0117	-0.29	OE

Summary Statistics

	Sample A35		Sample A36	
Grand Means	0.3208	Percent	0.2773	Percent
Stnd Dev Btwn Labs	0.0387	Percent	0.0405	Percent

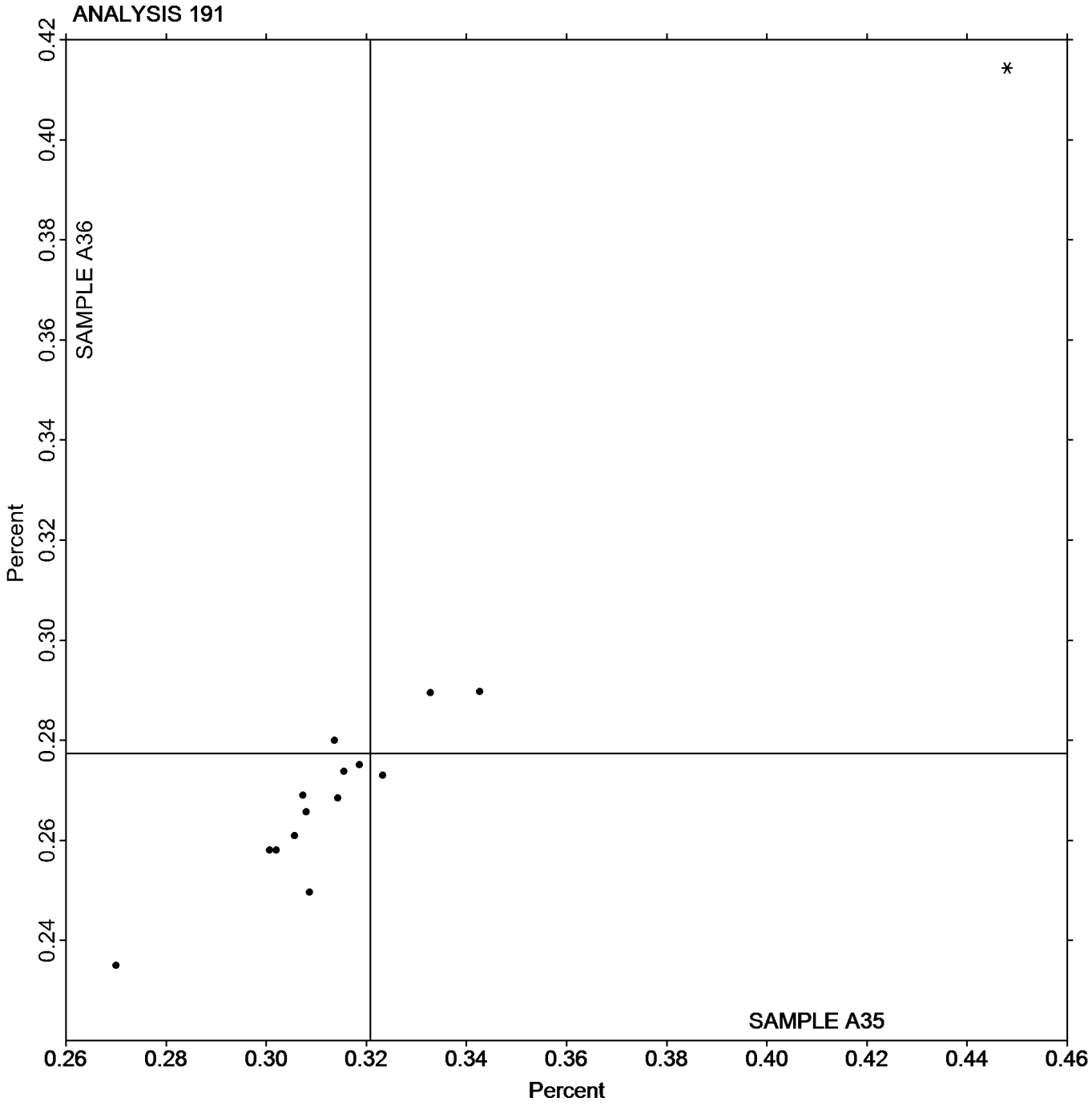
Samples A35, A36 : AA6061, two different heats

Statistics based on 15 of 15 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)	XX	Please Indicate Method Used for Current Element

SAMPLE A35	SAMPLE A36
0.3208 Percent	0.2773 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 192

Chemical Analysis Element #3 - Aluminum Alloy - Percent IRON (Fe)

Cycle 114
2nd Qtr 2016

WebCode	Data Flag	Sample A35 Lab Mean	Sample A35 Diff. from Grand Mean	Sample A35 CPV	Sample A36 Lab Mean	Sample A36 Diff. from Grand Mean	Sample A36 CPV	Method
299T3D		0.5293	-0.0073	-0.28	0.3110	0.0051	0.42	OE
4KBADY		0.5263	-0.0104	-0.39	0.3112	0.0052	0.44	OE
7K3W2M		0.5700	0.0333	1.25	0.2980	-0.0079	-0.66	OE
7YHYGP		0.5373	0.0006	0.02	0.3061	0.0002	0.01	OE
8VVZHL		0.5460	0.0093	0.35	0.3057	-0.0003	-0.02	GD
9TA7PR		0.5560	0.0193	0.73	0.3157	0.0097	0.81	OE
CHFA38		0.4727	-0.0640	-2.40	0.2860	-0.0199	-1.66	GD
CJNKJH		0.5426	0.0059	0.22	0.3080	0.0020	0.17	OE
DQLJYY		0.5700	0.0333	1.25	0.3200	0.0141	1.17	XX
GE38WC		0.4887	-0.0480	-1.80	0.2764	-0.0295	-2.46	IC
KFKDY7		0.5579	0.0212	0.80	0.3238	0.0179	1.49	OE
NM9H44		0.5439	0.0072	0.27	0.3051	-0.0009	-0.07	OE
NQ8LA6		0.5307	-0.0060	-0.23	0.3083	0.0024	0.20	OE
QY2CZX		0.5460	0.0093	0.35	0.3077	0.0017	0.15	OE
YTHA9K		0.5327	-0.0040	-0.15	0.3060	0.0001	0.01	OE

Summary Statistics

	Sample A35		Sample A36	
Grand Means	0.5367	Percent	0.3059	Percent
Stnd Dev Btwn Labs	0.0266	Percent	0.0120	Percent

Samples A35, A36 : AA6061, two different heats

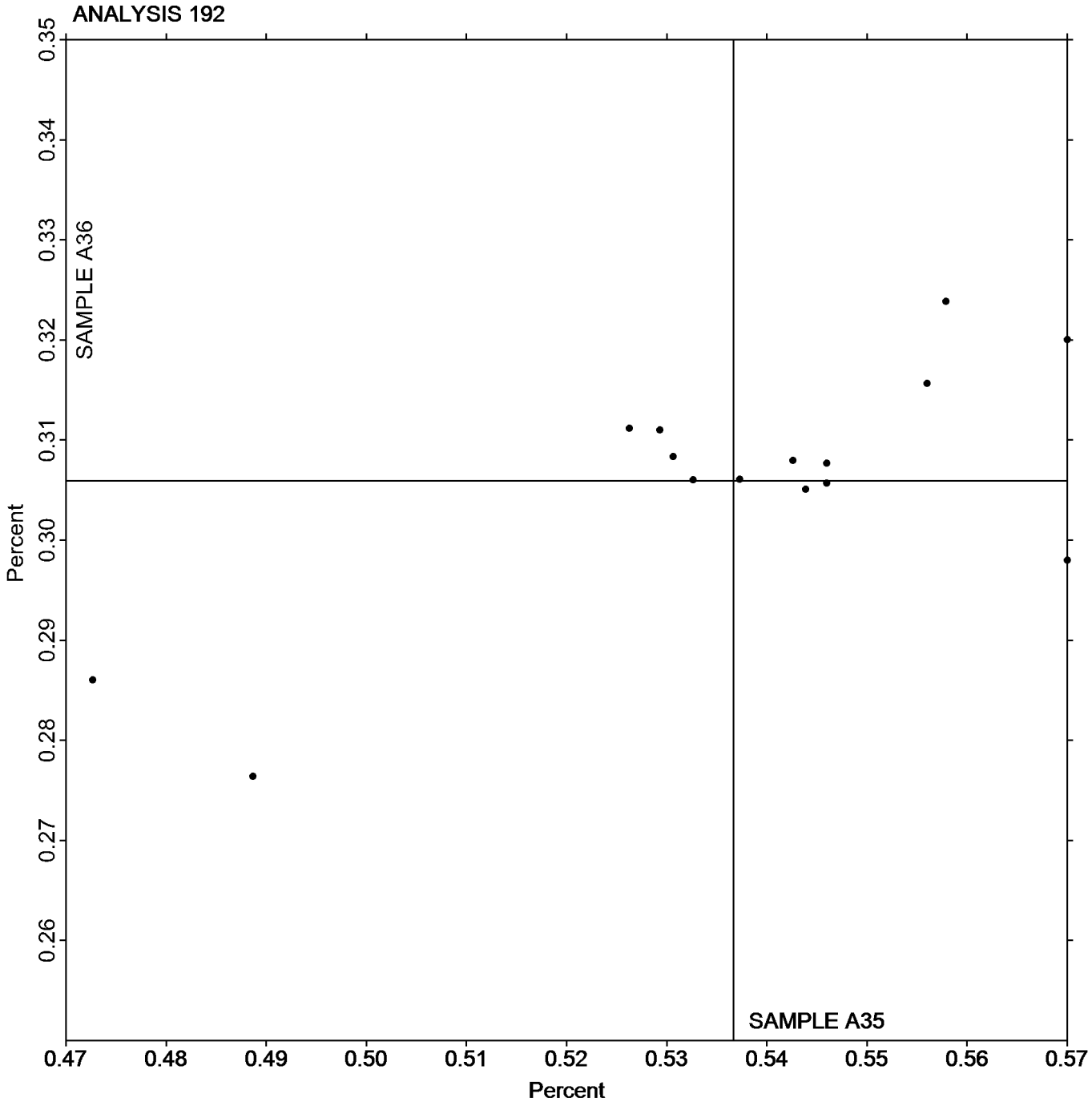
Statistics based on 15 of 15 reporting participants

Key to Method Codes Reported by Participants

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

SAMPLE A35
0.5367 Percent

SAMPLE A36
0.3059 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 193

Chemical Analysis Element #4 - Aluminum Alloy - Percent
SILICON (Si)

WebCode	Data Flag	Sample A35 Lab Mean	Sample A35 Diff. from Grand Mean	Sample A35 CPV	Sample A36 Lab Mean	Sample A36 Diff. from Grand Mean	Sample A36 CPV	Method
299T3D		0.6100	0.0025	0.07	0.7053	0.0040	0.09	OE
4KBADY		0.6226	0.0151	0.44	0.7176	0.0163	0.38	OE
7K3W2M		0.6700	0.0625	1.83	0.7733	0.0720	1.67	OE
7YHYGP		0.6031	-0.0044	-0.13	0.7068	0.0055	0.13	OE
8VVZHL		0.6073	-0.0001	0.00	0.7033	0.0020	0.05	GD
9TA7PR		0.5540	-0.0535	-1.56	0.6593	-0.0420	-0.98	OE
CHFA38		0.6277	0.0202	0.59	0.7230	0.0217	0.50	GD
CJNKJH		0.5912	-0.0162	-0.47	0.6834	-0.0179	-0.42	OE
DQLJYY	*	0.5253	-0.0821	-2.40	0.5787	-0.1227	-2.85	XX
KFKDY7		0.6265	0.0190	0.56	0.7147	0.0134	0.31	OE
NM9H44		0.6220	0.0146	0.43	0.7188	0.0175	0.41	OE
NQ8LA6		0.6173	0.0099	0.29	0.7200	0.0187	0.43	OE
QY2CZX		0.6183	0.0109	0.32	0.7037	0.0023	0.05	OE
YTHA9K		0.6090	0.0015	0.05	0.7107	0.0093	0.22	OE

Summary Statistics

	Sample A35		Sample A36	
Grand Means	0.6075	Percent	0.7013	Percent
Stnd Dev Btwn Labs	0.0342	Percent	0.0430	Percent

Samples A35, A36 : AA6061, two different heats

Statistics based on 14 of 14 reporting participants

Key to Method Codes Reported by Participants

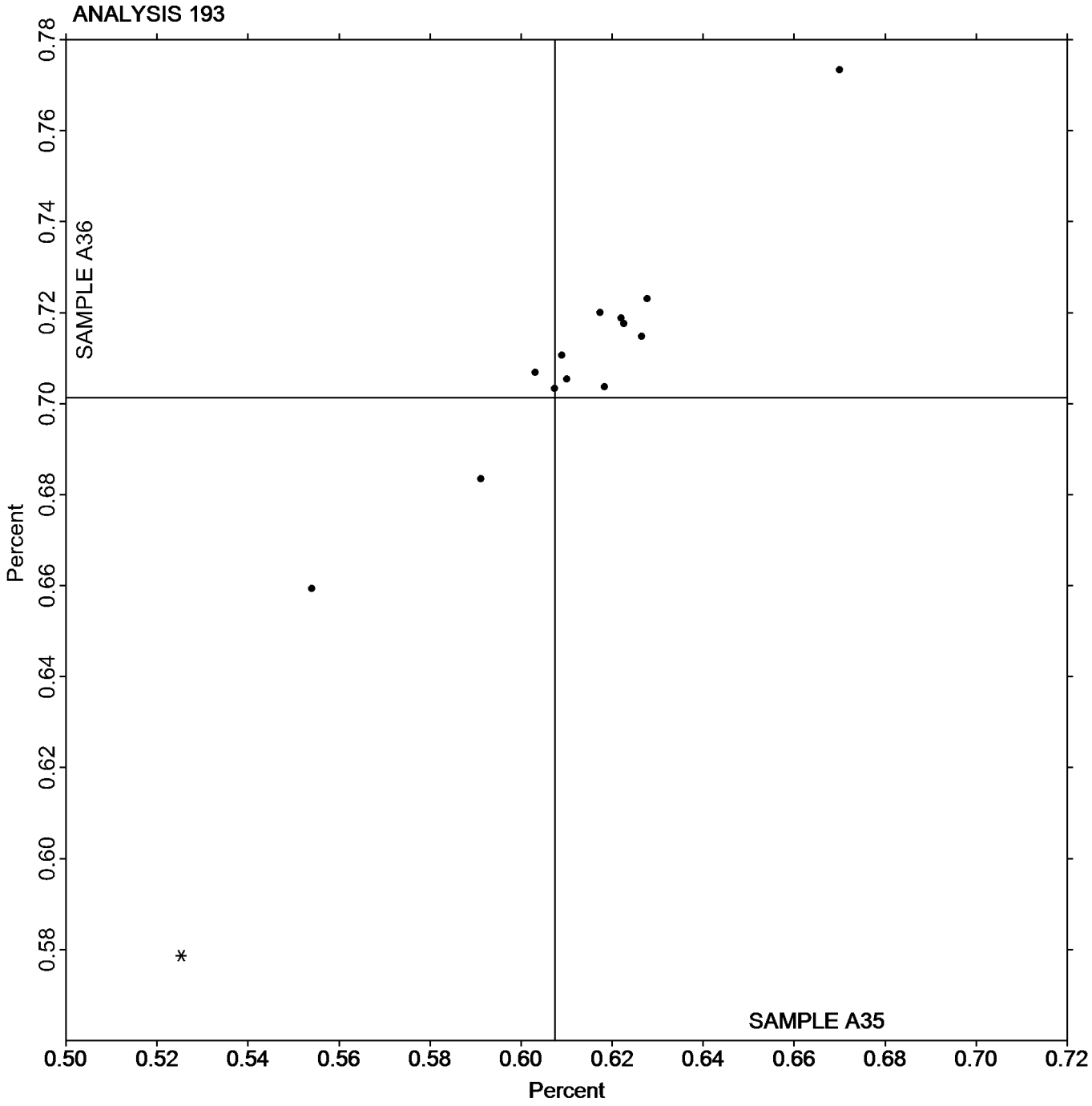
GD Spectrometry - Glow Discharge (GDS)

OE Spectrometry - Optical Emission (OES)

XX Please Indicate Method Used for Current Element

SAMPLE A35
0.6075 Percent

SAMPLE A36
0.7013 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 194

Chemical Analysis Element #5 - Aluminum Alloy - Percent
MANGANESE (Mn)

Cycle 114
2nd Qtr
2016

WebCode	Data Flag	Sample A35 Lab Mean	Sample A35 Diff. from Grand Mean	Sample A35 CPV	Sample A36 Lab Mean	Sample A36 Diff. from Grand Mean	Sample A36 CPV	Method
299T3D		0.1130	0.0028	0.63	0.1083	0.0028	0.49	OE
4KBADY		0.1052	-0.0050	-1.15	0.1012	-0.0043	-0.75	OE
7K3W2M		0.1153	0.0051	1.16	0.1100	0.0045	0.78	OE
7YHYGP		0.1198	0.0096	2.18	0.1194	0.0138	2.40	OE
8VVZHL		0.1147	0.0045	1.01	0.1103	0.0048	0.83	GD
9TA7PR		0.1130	0.0028	0.63	0.1130	0.0075	1.30	OE
CHFA38		0.1117	0.0015	0.33	0.1057	0.0001	0.02	GD
CJNKJH		0.1045	-0.0057	-1.31	0.0996	-0.0059	-1.03	OE
DQLJYY		0.1120	0.0018	0.41	0.1057	0.0001	0.02	XX
GE38WC		0.1062	-0.0040	-0.91	0.0999	-0.0056	-0.98	IC
KFKDY7		0.1076	-0.0026	-0.59	0.1025	-0.0030	-0.52	OE
NM9H44		0.1070	-0.0032	-0.74	0.1013	-0.0042	-0.74	OE
NQ8LA6		0.1067	-0.0035	-0.81	0.0988	-0.0067	-1.17	OE
QY2CZX		0.1080	-0.0022	-0.50	0.1030	-0.0025	-0.44	OE
YTHA9K		0.1087	-0.0015	-0.35	0.1043	-0.0012	-0.21	OE

Summary Statistics

	Sample A35		Sample A36	
Grand Means	0.1102	Percent	0.1055	Percent
Stnd Dev Btwn Labs	0.0044	Percent	0.0057	Percent

Samples A35, A36 : AA6061, two different heats

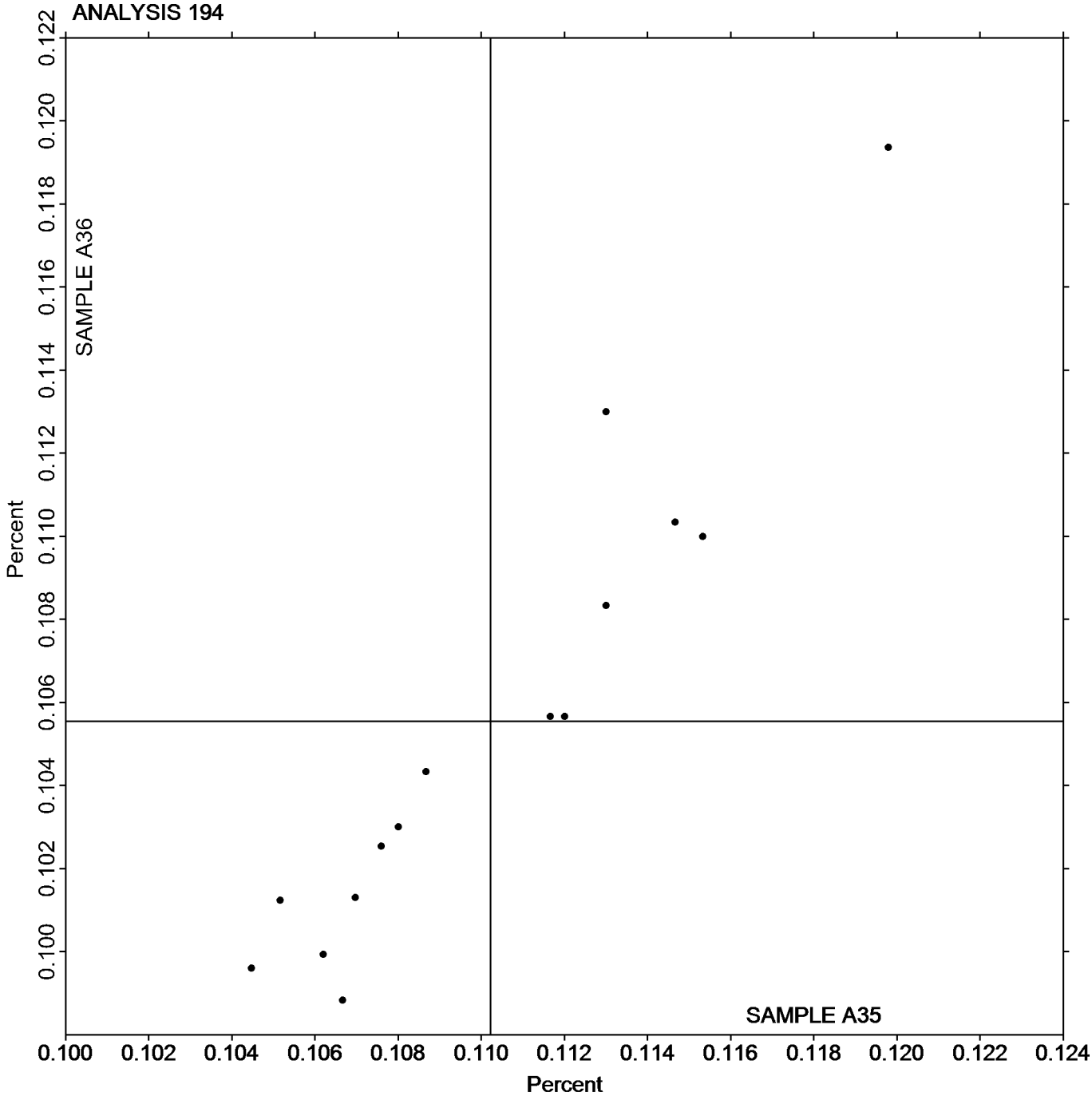
Statistics based on 15 of 15 reporting participants

Key to Method Codes Reported by Participants

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

SAMPLE A35
0.1102 Percent

SAMPLE A36
0.1055 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 195

Chemical Analysis Element #6 - Aluminum Alloy - Percent
MAGNESIUM (Mg)

WebCode	Data Flag	Sample A35 Lab Mean	Sample A35 Diff. from Grand Mean	Sample A35 CPV	Sample A36 Lab Mean	Sample A36 Diff. from Grand Mean	Sample A36 CPV	Method
299T3D		0.8310	-0.0049	-0.19	0.8840	0.0030	0.11	OE
4KBADY		0.8598	0.0239	0.92	0.9010	0.0200	0.71	OE
7K3W2M		0.8267	-0.0092	-0.36	0.8667	-0.0143	-0.51	OE
7YHYGP		0.8231	-0.0128	-0.49	0.8719	-0.0091	-0.32	OE
8VVZHL		0.8100	-0.0259	-1.00	0.8793	-0.0017	-0.06	GD
9TA7PR		0.8643	0.0284	1.10	0.8933	0.0123	0.44	OE
CHFA38		0.8380	0.0021	0.08	0.8953	0.0143	0.51	GD
CJNKJH		0.8569	0.0210	0.81	0.9172	0.0362	1.28	XX
DQLJYY		0.8433	0.0074	0.29	0.8697	-0.0113	-0.40	XX
KFKDY7		0.8670	0.0311	1.20	0.9157	0.0347	1.23	OE
NM9H44		0.8519	0.0160	0.62	0.8884	0.0074	0.26	OE
NQ8LA6		0.7680	-0.0679	-2.63	0.8003	-0.0807	-2.86	OE
QY2CZX		0.8313	-0.0046	-0.18	0.8703	-0.0107	-0.38	OE
YTHA9K		0.8313	-0.0046	-0.18	0.8810	0.0000	0.00	OE

Summary Statistics

	Sample A35		Sample A36	
Grand Means	0.8359	Percent	0.8810	Percent
Stnd Dev Btwn Labs	0.0259	Percent	0.0283	Percent

Samples A35, A36 : AA6061, two different heats

Statistics based on 14 of 14 reporting participants

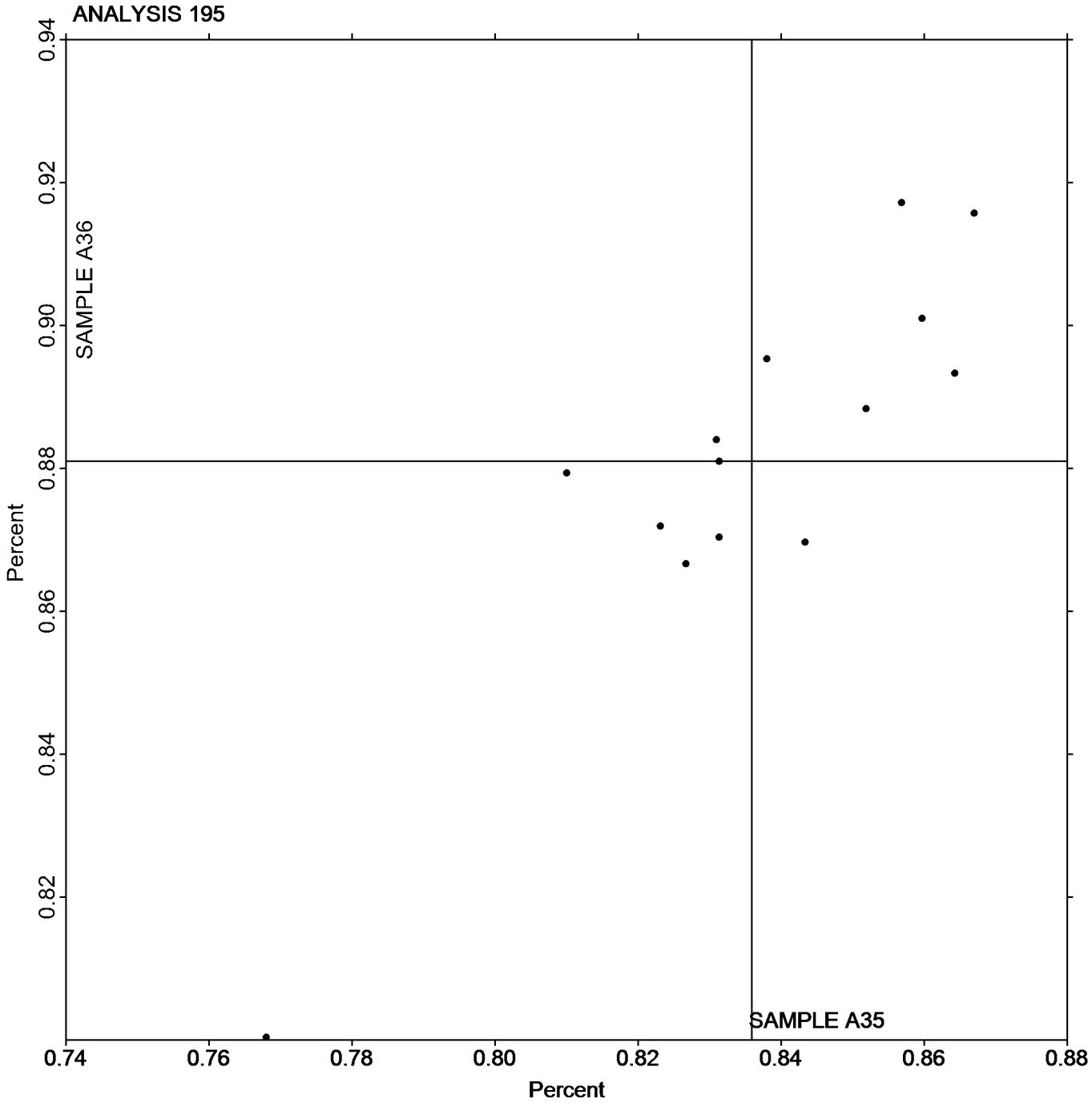
Key to Method Codes Reported by Participants

GD Spectrometry - Glow Discharge (GDS)

OE Spectrometry - Optical Emission (OES)

XX Please Indicate Method Used for Current Element

SAMPLE A35	SAMPLE A36
0.8359 Percent	0.8810 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 196

Chemical Analysis Element #7 - Aluminum Alloy - Percent CHROMIUM (Cr)

		Sample A35			Sample A36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
299T3D		0.1010	-0.0011	-0.10	0.1053	-0.0012	-0.13	OE
4KBADY		0.1036	0.0015	0.13	0.1083	0.0018	0.19	OE
7K3W2M		0.1063	0.0042	0.38	0.1110	0.0044	0.47	OE
7YHYGP		0.1012	-0.0009	-0.08	0.1073	0.0007	0.08	OE
8VVZHL		0.0990	-0.0031	-0.27	0.1027	-0.0039	-0.41	GD
9TA7PR		0.0950	-0.0071	-0.63	0.0980	-0.0086	-0.91	OE
CHFA38	*	0.1387	0.0366	3.24	0.1370	0.0304	3.22	GD
CJNKJH		0.1053	0.0032	0.28	0.1108	0.0042	0.45	OE
DQLJYY		0.1047	0.0026	0.23	0.1070	0.0004	0.04	XX
GE38WC		0.0929	-0.0092	-0.82	0.0951	-0.0115	-1.22	IC
KFKDY7		0.1006	-0.0015	-0.13	0.1045	-0.0021	-0.22	OE
NM9H44		0.0990	-0.0031	-0.28	0.1027	-0.0039	-0.41	OE
NQ8LA6	*	0.0869	-0.0152	-1.34	0.1030	-0.0036	-0.38	OE
QY2CZX		0.0980	-0.0041	-0.36	0.1020	-0.0046	-0.48	OE
YTHA9K		0.0993	-0.0028	-0.24	0.1040	-0.0026	-0.27	OE

Summary Statistics

	Sample A35		Sample A36	
Grand Means	0.1021	Percent	0.1066	Percent
Stnd Dev Btwn Labs	0.0113	Percent	0.0094	Percent

Samples A35, A36 : AA6061, two different heats

Statistics based on 15 of 15 reporting participants

Key to Method Codes Reported by Participants

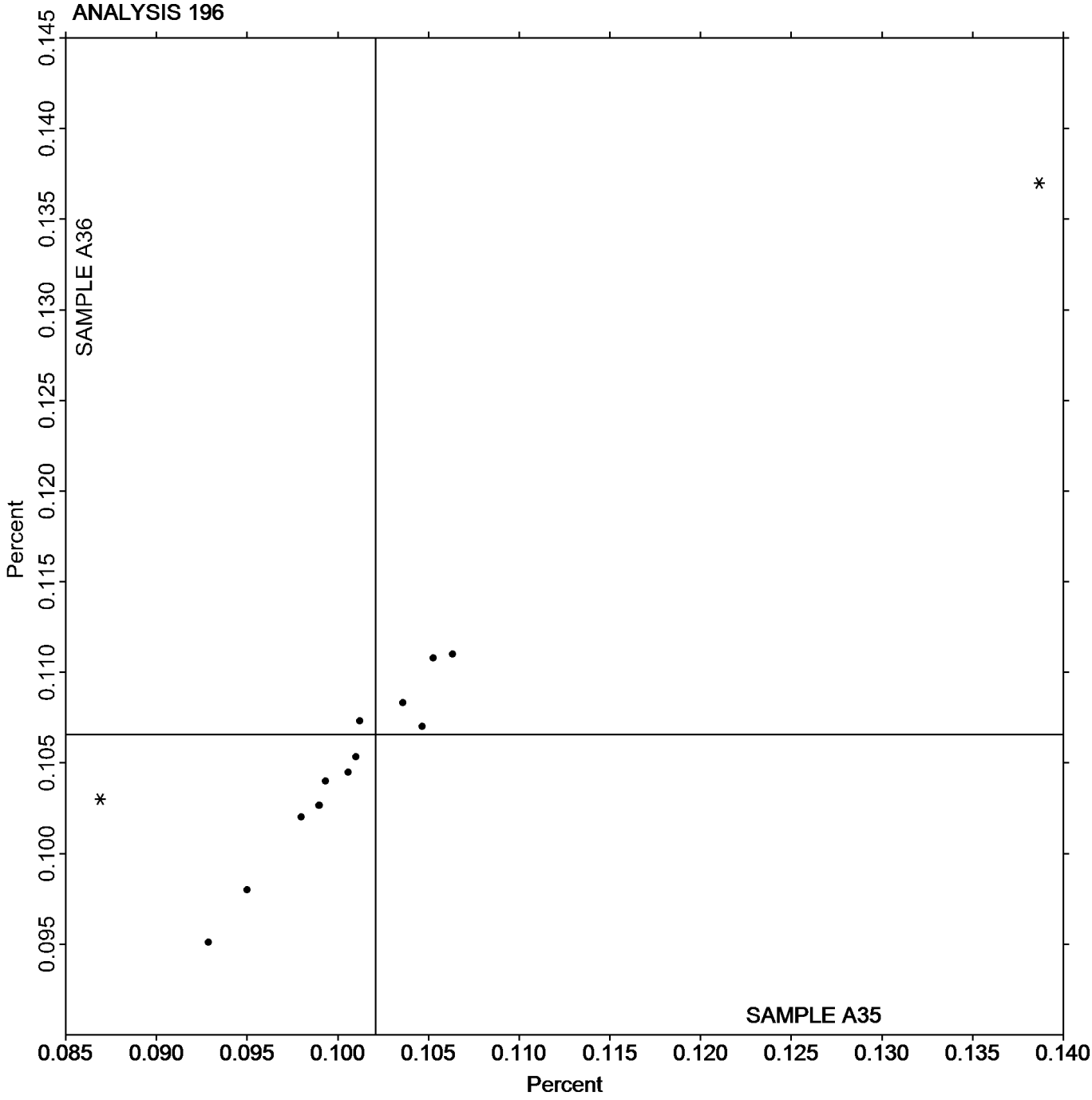
GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
OE	Spectrometry - Optical Emission (OES)	XX	Please Indicate Method Used for Current Element

Analysis Notes:

NQ8LA6 - Data appeared to be submitted with a decimal placement error. Data were corrected by CTS.

SAMPLE A35
0.1021 Percent

SAMPLE A36
0.1066 Percent



Fasteners and Metals Interlaboratory Testing Program

Analysis 197

Chemical Analysis Element #8 - Aluminum Alloy - Percent ZINC (Zn)

		Sample A35			Sample A36			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
299T3D		0.1193	0.0020	0.23	0.0240	-0.0002	-0.05	OE
4KBADY		0.1211	0.0037	0.44	0.0198	-0.0045	-0.90	OE
7K3W2M		0.1113	-0.0060	-0.70	0.0213	-0.0029	-0.59	OE
7YHYGP		0.1136	-0.0037	-0.44	0.0243	0.0001	0.01	OE
8VVZHL		0.1197	0.0023	0.27	0.0187	-0.0056	-1.12	GD
9TA7PR	*	0.0967	-0.0207	-2.41	0.0397	0.0154	3.11	OE
CHFA38		0.1177	0.0004	0.04	0.0271	0.0028	0.57	GD
CJNKJH		0.1231	0.0058	0.67	0.0247	0.0005	0.09	OE
DQLJYY		0.1310	0.0137	1.60	0.0263	0.0021	0.42	XX
GE38WC		0.1225	0.0052	0.60	0.0245	0.0003	0.06	IC
KFKDY7		0.1030	-0.0144	-1.67	0.0211	-0.0032	-0.64	OE
NM9H44		0.1236	0.0062	0.73	0.0252	0.0009	0.19	OE
NQ8LA6		0.1150	-0.0023	-0.27	0.0194	-0.0048	-0.97	OE
QY2CZX		0.1220	0.0047	0.55	0.0243	0.0001	0.02	OE
YTHA9K		0.1203	0.0030	0.35	0.0233	-0.0009	-0.18	OE

Summary Statistics

	Sample A35		Sample A36	
Grand Means	0.1173	Percent	0.0242	Percent
Stnd Dev Btwn Labs	0.0086	Percent	0.0050	Percent

Samples A35, A36 : AA6061, two different heats

Statistics based on 15 of 15 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)	XX	Please Indicate Method Used for Current Element

SAMPLE A35
0.1173 Percent

SAMPLE A36
0.0242 Percent