Collaborative Testing Services, Inc.

Fasteners & Metals Interlaboratory Testing Program

Summary Report Cycle 127, 3rd Qtr 2019

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ABOUT THE FASTENERS & METALS PROGRAM

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

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

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

ABOUT CTS

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

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

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

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

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

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

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

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

Data Flags

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

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

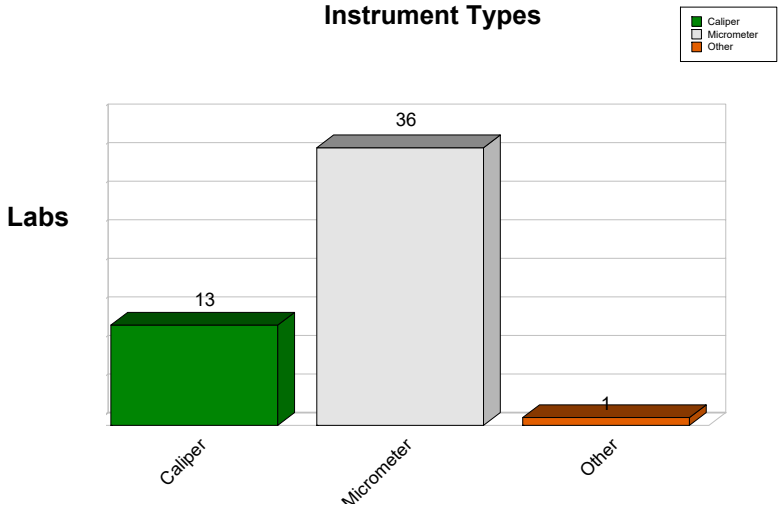
Fasteners and Metals Interlaboratory Testing Program

Analysis 101

Dimensional: Outside Diameter of Plain Plug Gage
ISO GUM

Cycle 127
3rd Qtr 2019

During Cycle 127, CTS conducted the Analysis #101 - Round Dimensional. For this test all participants received two samples I61 and I62 with nominal diameters; 0.2500 in. and 0.2496 in. Each sample is an English Class X gage pin with 0.00002 in roundness limit made from 52100 bearing steel, hardened to 60-62 Rockwell C. Laboratories were asked to determine the outside diameter of the pins. 50 laboratories that subscribed for this test reported testing results. The graph below shows a breakdown of the types of instruments used.



Analysis of the Results

The most convenient and common method of judging the quality of measurement results is by calculating the performance statistic, En, calculated as:

$$E_n = \frac{\left(X_{lab} - X_{ref}\right)}{\sqrt{U_{lab}^2 + U_{ref}^2}}$$

Where the assigned value, Xref, is determined in a reference laboratory, Uref is the expanded uncertainty of Xref, and Ulab is the **Expanded Uncertainty** of a participant's result, Xlab. En is not calculated for Labs who did not report their Expanded Uncertainty.

Absolute values of En less than **1.00** should be obtained for the measurements to be acceptable.

The following graph and the table represent the results reported by participants. All tests were conducted at room temperature (20-23C or 68-77F).

Xref and Uref were determined by the gage pin manufacturer. The manufacturer is ISO 9001:2000 Certified and an ISO 17025 Accredited company. All master gages used in checking the plug gages are calibrated with standards traceable to NIST.

$$E_n = \frac{\left(X_{lab} - X_{ref}\right)}{\sqrt{U_{lab}^2 + U_{ref}^2}}$$

Xref1 = 0.2500 in.

Xref2 = 0.2496 in.

				Sample I61		Sample I62		
WebCode	Data Flag (if assigned)	Reference Uncertainty (Uref)	Expanded Uncertainty (Ulab)	Lab Mean (Xlab)	Performance Statistic (En1)	Lab Mean (Xlab)	Performance Statistic (En2)	Instrument
24WKEP		0.00004	0.00050	0.25000	0.00	0.24950	-0.20	Micrometer
2UGCKW		0.00004	0.00042	0.25000	0.00	0.24951	-0.20	Caliper
2XE3HV	X	0.00004	0.00003	0.24999	-0.20	0.24968	1.60	Micrometer
33EVNH		0.00004	0.00015	0.24992	-0.50	0.24953	-0.46	Micrometer
3RHNAL		0.00004	0.00015	0.24998	-0.15	0.24956	-0.26	Micrometer
3VGY6L		0.00004	0.00012	0.24999	-0.08	0.24954	-0.49	Micrometer
4NTTRC		0.00004	0.00118	0.25000	0.00	0.24961	0.01	Caliper
79DEJD		0.00004	0.00016	0.25002	0.12	0.24962	0.12	Micrometer
7BRBQA		0.00004	0.00500	0.24950	-0.10	0.24900	-0.12	Caliper
7M92LY		0.00004	0.00116	0.24990	-0.09	0.24940	-0.17	Caliper
7NC6UG		0.00004	0.00040	0.25000	0.00	0.24960	0.00	Micrometer
7XNCV6		0.00004	Not Reported	0.25000		0.24950		Micrometer
82WPXG	X	0.00004	0.00004	0.24986	-2.52	0.24951	-1.57	Micrometer
87DZ6J		0.00004	0.00021	0.24985	-0.70	0.24959	-0.05	Micrometer
A4XCPB		0.00004	0.00210	0.25000	0.00	0.24900	-0.29	Caliper
A6TJTH		0.00004	0.00016	0.24998	-0.10	0.24958	-0.11	Micrometer
BKBVLB		0.00004	0.00016	0.25014	0.87	0.24965	0.33	Micrometer
CY46BZ		0.00004	0.00030	0.24990	-0.33	0.24950	-0.33	Micrometer
D4UTRQ		0.00004	0.00030	0.24995	-0.17	0.24960	0.00	Micrometer
EAGUC3		0.00004	0.00260	0.24950	-0.19	0.24910	-0.19	Caliper
FAVNNW		0.00004	0.00150	0.24930	-0.47	0.24900	-0.40	Caliper
FKTNZZ		0.00004	0.00005	0.24995	-0.78	0.24960	0.00	Micrometer
FRVX8T		0.00004	0.00094	0.24984	-0.17	0.24935	-0.27	Micrometer
FTFBQQ		0.00004	0.00200	0.24950	-0.25	0.24900	-0.30	Caliper
G6Z3KZ		0.00004	0.00030	0.24990	-0.33	0.24950	-0.33	Micrometer
GNWM47		0.00004	0.00022	0.24994	-0.27	0.24951	-0.40	Micrometer
HHE4ZP	X	0.00004	0.00002	0.24998	-0.36	0.24954	-1.32	Micrometer
JNZ9GW		0.00004	0.00019	0.25000	0.00	0.24960	0.00	Micrometer
JXP2PM		0.00004	0.00040	0.25002	0.05	0.24959	-0.02	Micrometer
KFZDUH		0.00004	0.00059	0.24988	-0.20	0.24932	-0.47	Micrometer
M43XAY		0.00004	0.00012	0.24998	-0.16	0.24960	0.00	Micrometer
MCV62R		0.00004	0.00068	0.24974	-0.38	0.24932	-0.41	Caliper
N6QTFE		0.00004	0.00023	0.24989	-0.47	0.24951	-0.38	Micrometer

$$E_n = \frac{\left(X_{lab} - X_{ref}\right)}{\sqrt{U_{lab}^2 + U_{ref}^2}}$$

Xref1 = 0.2500 in.

Xref2 = 0.2496 in.

WebCode	Data Flag (if assigned)	Reference Uncertainty (Uref)	Expanded Uncertainty (Ulab)	Sample I61 Lab Mean (Xlab)	Sample I61 Performance Statistic (En1)	Sample I62 Lab Mean (Xlab)	Sample I62 Performance Statistic (En2)	Instrument
NDFU3H		0.00004	0.00015	0.24997	-0.19	0.24957	-0.19	Micrometer
NZBVHL		0.00004	0.00020	0.24983	-0.85	0.24959	-0.05	Micrometer
PU7UV3	X	0.00004	0.00016	0.24964	-2.18	0.24940	-1.21	Micrometer
QQTDLG		0.00004	0.00058	0.24991	-0.15	0.24954	-0.10	Micrometer
QRU2AM		0.00004	0.00010	0.25000	0.00	0.24960	0.00	Micrometer
RENPR8		0.00004	0.00015	0.24992	-0.52	0.24952	-0.52	Micrometer
RVPRXQ		0.00004	0.00030	0.24995	-0.17	0.24953	-0.23	Micrometer
T3GMBE	X	0.00004	0.00047	0.24950	-1.06	0.24900	-1.27	Caliper
TLGJ3B		0.00004	0.00050	0.25000	0.00	0.24950	-0.20	Micrometer
UM8697		0.00004	0.00042	0.24995	-0.13	0.24955	-0.12	Micrometer
V4MR29		0.00004	0.00047	0.24987	-0.27	0.24946	-0.29	Micrometer
V89FRZ		0.00004	0.00100	0.24990	-0.10	0.24950	-0.10	Caliper
VDKEER		0.00004	0.00020	0.25000	0.00	0.24961	0.03	Micrometer
XW9LFE		0.00004	0.00030	0.24997	-0.11	0.24960	0.00	Other
Y7VT2P	X	0.00004	0.00002	0.24985	-3.48	0.24950	-2.23	Micrometer
Z8ANBN		0.00004	0.00144	0.24950	-0.35	0.24900	-0.42	Caliper
ZBVC62	X	0.00004	0.00092	0.24900	-1.09	0.24900	-0.65	Caliper

Summary Statistics

		Sample I61		Sample I62	
Reference Uncertainty = 0.00004 in.	Reference Diameters:	0.2500	inch	0.2496	inch

Samples I61, I62 : 52100 Steel, 52100 Steel

Comments on Assigned Data Flags for Test #101

2XE3HV (X) - En value for sample I62 was high.

82WPXG (X) - En value for both samples was low.

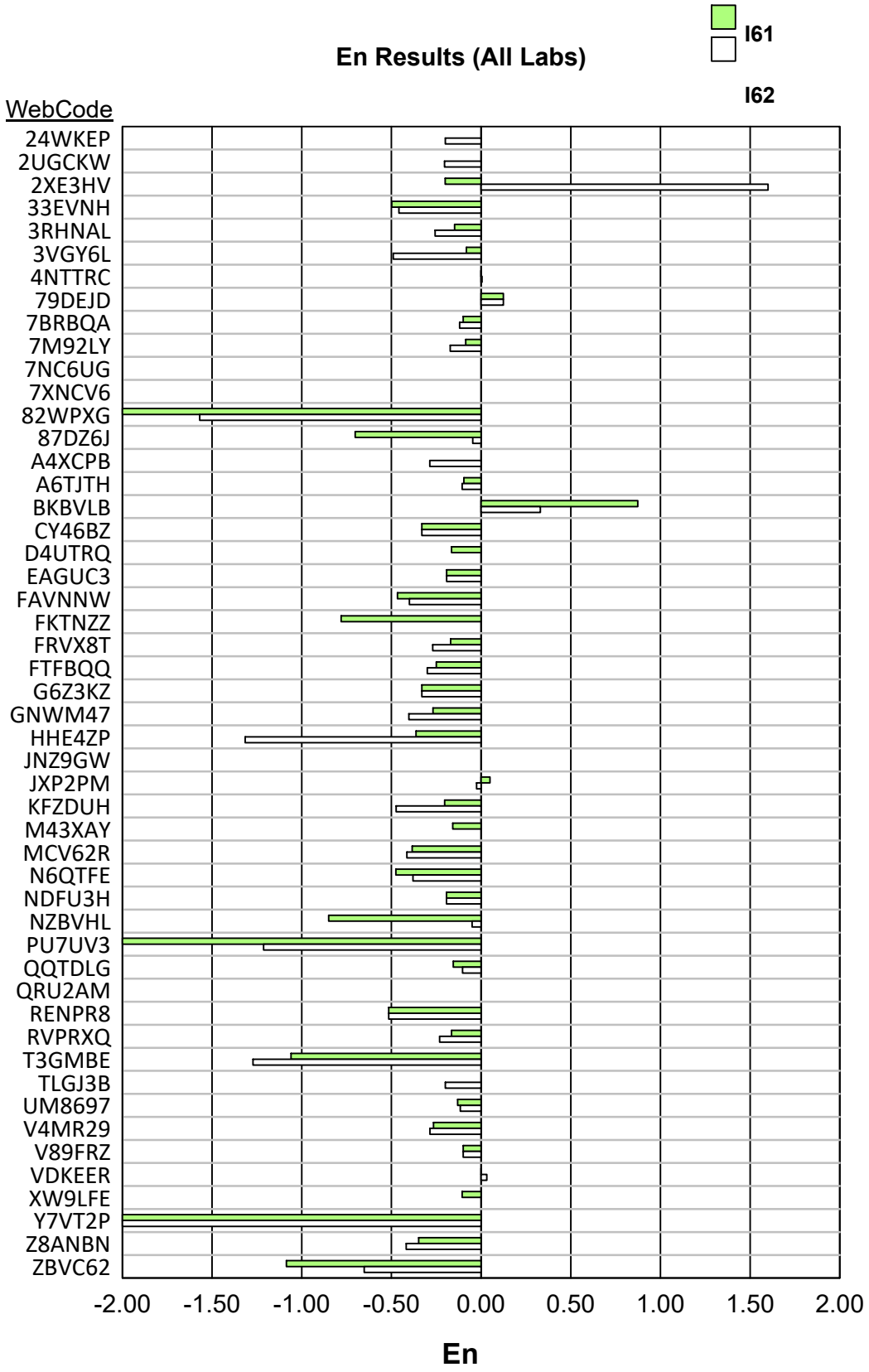
HHE4ZP (X) - En value for sample I62 was low.

PU7UV3 (X) - En value for both samples was low.

T3GMBE (X) - En value for both samples was low.

Y7VT2P (X) - En value for both samples was low.

ZBVC62 (X) - En value for sample I61 was low.



		Sample R61			Sample R62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
29Y9GK		45.45	-0.37	-0.57	49.83	-0.43	-1.04
2CVZNW		46.79	0.97	1.47	50.59	0.33	0.81
2HCK6N		45.80	-0.02	-0.04	50.80	0.54	1.32
2HT7W9		46.00	0.18	0.27	50.30	0.04	0.11
2RVGBB		45.10	-0.72	-1.10	49.90	-0.36	-0.87
2VL2DE		45.61	-0.21	-0.32	49.72	-0.54	-1.31
2XE3HV		45.17	-0.65	-0.99	50.37	0.11	0.28
2XLXGA		45.26	-0.57	-0.86	49.99	-0.26	-0.64
6F4D3Z		45.59	-0.24	-0.36	50.35	0.10	0.24
6HGCMF		45.80	-0.02	-0.04	49.90	-0.36	-0.87
7FB9D6		45.98	0.15	0.23	50.33	0.07	0.18
8FZQZX		45.80	-0.02	-0.04	50.60	0.34	0.84
8HUH4G		45.30	-0.52	-0.80	50.10	-0.16	-0.38
8HZM3T	X	47.45	1.63	2.47	38.70	-11.56	-28.11
8UKV38	X	44.38	-1.44	-2.19	51.30	1.04	2.53
9D6DCQ		44.70	-1.12	-1.71	50.10	-0.16	-0.38
9D7JUR		46.10	0.28	0.42	51.00	0.74	1.81
9HPEXJ		46.20	0.38	0.57	50.40	0.14	0.35
9RPTFQ		46.40	0.58	0.87	50.50	0.24	0.59
BV6TX4	*	45.01	-0.82	-1.24	49.19	-1.07	-2.60
CW9YLN		45.71	-0.11	-0.17	49.68	-0.58	-1.40
D24PKD		46.25	0.43	0.65	50.68	0.42	1.02
D4NYUX		46.50	0.68	1.03	50.60	0.34	0.84
EMWJRK	X	44.80	-1.02	-1.56	48.60	-1.66	-4.03
EUBNJK		46.20	0.38	0.57	50.30	0.04	0.11
F7668L		47.12	1.30	1.97	50.64	0.38	0.93
FWU3MK		46.30	0.48	0.72	50.20	-0.06	-0.14
G9NFHB		46.09	0.27	0.41	50.72	0.46	1.13
GBDVZJ		45.90	0.08	0.11	50.00	-0.26	-0.62
GLVJQC		45.48	-0.34	-0.52	50.21	-0.05	-0.11
H3KXVV		45.40	-0.42	-0.64	50.10	-0.16	-0.38
H3U2BE		47.00	1.18	1.78	50.40	0.14	0.35
HEPCEF		46.82	1.00	1.51	50.50	0.24	0.59
HGWH9U	X	52.36	6.53	9.92	46.12	-4.13	-10.06
KMVVUG		46.08	0.25	0.39	50.30	0.04	0.10
KTVDU2	*	43.92	-1.90	-2.89	49.85	-0.41	-0.99
KUMC9Y		46.10	0.28	0.42	50.40	0.14	0.35
KY4J4E		46.00	0.18	0.27	50.50	0.24	0.59
L2FZ9A		46.60	0.78	1.18	50.90	0.64	1.57
LA664B	X	43.60	-2.23	-3.38	49.04	-1.21	-2.95
LAZ2XD	*	45.66	-0.16	-0.25	51.19	0.93	2.27
M3H2AE		45.20	-0.62	-0.95	49.80	-0.46	-1.11
M43XAY		45.76	-0.06	-0.10	49.97	-0.29	-0.70
MX78ZA		46.60	0.78	1.18	50.30	0.04	0.11
PGAKVU		45.86	0.04	0.06	49.98	-0.28	-0.67
Q639J7		46.00	0.18	0.27	49.80	-0.46	-1.11
R86LK6		46.14	0.31	0.47	49.75	-0.51	-1.24

		Sample R61			Sample R62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
TBFF2G		44.90	-0.92	-1.40	50.30	0.04	0.11
TNH3U7		44.80	-1.02	-1.56	50.10	-0.16	-0.38
VUYZCU		45.85	0.03	0.04	50.45	0.19	0.47
W3TN3E	X	48.00	2.18	3.30	51.90	1.64	4.00
WM6URU		45.12	-0.71	-1.08	49.37	-0.88	-2.15
WMHKL7		45.50	-0.32	-0.49	50.10	-0.16	-0.38
XFCUGZ		45.20	-0.62	-0.95	50.70	0.44	1.08
XLEZV4		44.90	-0.92	-1.40	50.50	0.24	0.59
YL8DRU		46.93	1.11	1.69	51.04	0.78	1.90
YT8V78		46.63	0.81	1.22	49.84	-0.42	-1.01
ZJDWUE		46.30	0.48	0.72	50.20	-0.06	-0.14

Summary Statistics

	Sample R61		Sample R62	
Grand Means	45.82	ksi	50.26	ksi
Stnd Dev Btwn Labs	0.66	ksi	0.41	ksi

Samples R61, R62 : 16G 6061-T6 (A), 14G 6061-T6 (B)

Statistics based on 52 of 58 reporting participants

Comments on Assigned Data Flags for Test #105

8HZM3T (X) - Data for sample R62 are extremely low.

8UKV38 (X) - Inconsistent in testing between samples.

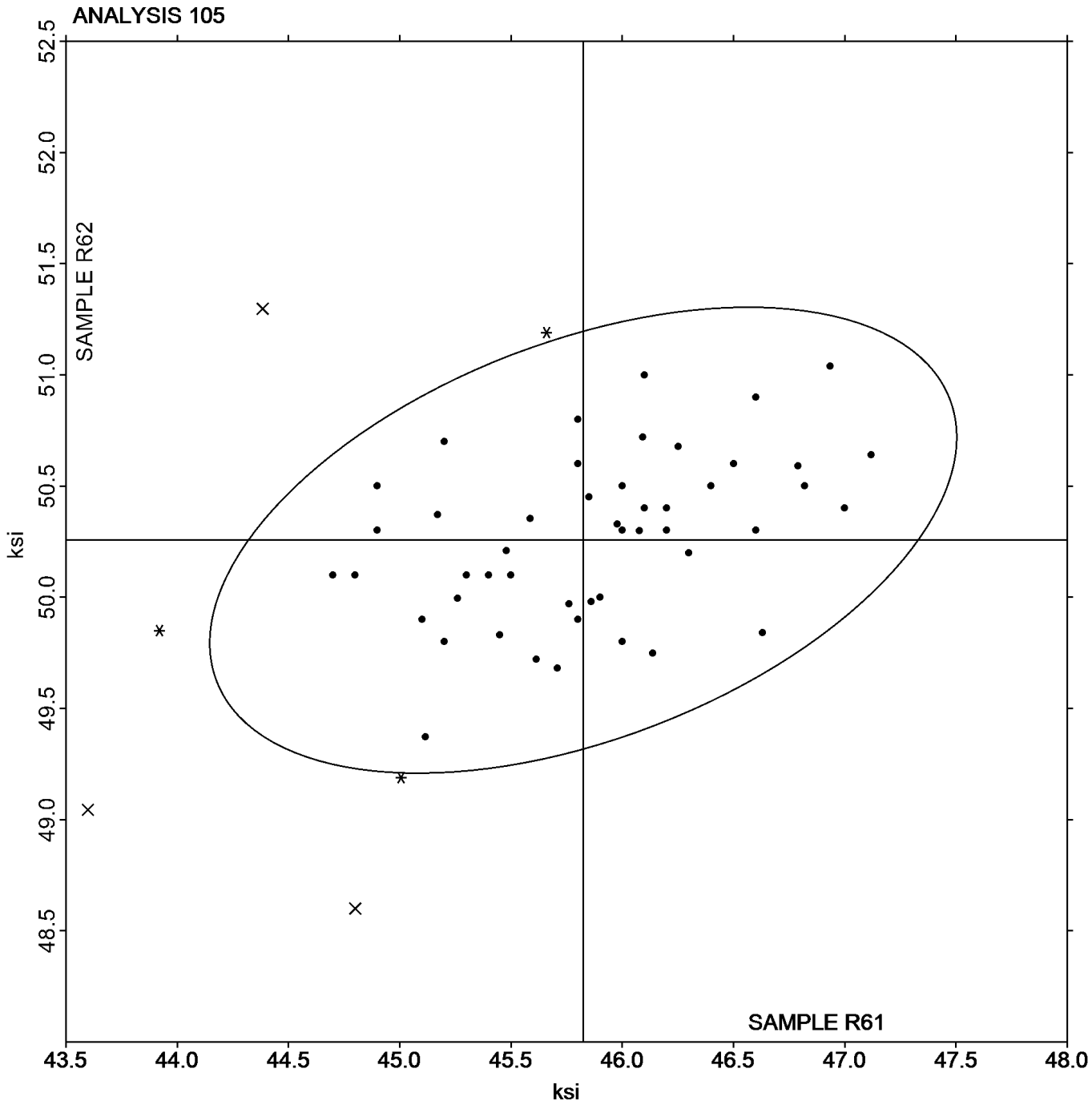
EMWJRK (X) - Data for sample R62 are low.

HGWH9U (X) - Data appear to be transposed between samples.

LA664B (X) - Data for both samples are low.

W3TN3E (X) - Data for both samples are high.

SAMPLE R61	SAMPLE R62
45.82 ksi	50.26 ksi



		Sample R61			Sample R62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
29Y9GK		37.33	-0.02	-0.02	41.39	0.03	0.06
2CVZNW		38.10	0.75	0.85	41.53	0.17	0.31
2HCK6N		37.50	0.15	0.17	42.20	0.84	1.51
2HT7W9		37.60	0.25	0.28	41.20	-0.16	-0.28
2RVGBB		37.00	-0.35	-0.40	41.10	-0.26	-0.46
2VL2DE		37.29	-0.06	-0.07	40.84	-0.51	-0.92
2XE3HV	X	36.53	-0.82	-0.93	37.65	-3.71	-6.63
2XLXGA		37.16	-0.19	-0.21	40.40	-0.95	-1.71
6F4D3Z		37.21	-0.14	-0.16	41.64	0.28	0.51
6HGCMF		37.60	0.25	0.28	40.70	-0.66	-1.17
7FB9D6		37.42	0.07	0.08	41.34	-0.02	-0.04
8FZQZX		37.60	0.25	0.28	41.90	0.54	0.97
8HUH4G		36.90	-0.45	-0.51	40.70	-0.66	-1.17
8HZM3T		38.70	1.35	1.53	42.24	0.88	1.58
8UKV38		35.69	-1.66	-1.88	41.02	-0.33	-0.60
9D6DCQ		36.60	-0.75	-0.85	41.40	0.04	0.08
9D7JUR		37.80	0.45	0.51	42.10	0.74	1.33
9HPEXJ		38.00	0.65	0.74	41.60	0.24	0.44
9RPTFQ		37.60	0.25	0.28	41.00	-0.36	-0.64
BV6TX4		36.86	-0.49	-0.56	40.47	-0.88	-1.58
CW9YLN		37.35	0.00	0.00	40.94	-0.42	-0.75
D24PKD		38.09	0.74	0.83	41.90	0.55	0.98
D4NYUX		37.50	0.15	0.17	41.00	-0.36	-0.64
EUBNJK		37.80	0.45	0.51	41.60	0.24	0.44
F7668L		38.68	1.33	1.51	41.79	0.43	0.78
FWU3MK		37.90	0.55	0.62	41.40	0.04	0.08
G9NFHB		37.43	0.08	0.09	42.15	0.79	1.42
GBDVZJ		37.50	0.15	0.17	41.10	-0.26	-0.46
GLVJQC		37.04	-0.31	-0.35	41.32	-0.04	-0.07
H3KXVV		36.00	-1.35	-1.53	41.10	-0.26	-0.46
H3U2BE		38.50	1.15	1.30	41.60	0.24	0.44
HEPCEF		38.34	0.99	1.12	41.59	0.23	0.42
HGWH9U	X	44.24	6.89	7.81	44.38	3.03	5.41
KMVVUG		37.75	0.40	0.46	41.44	0.08	0.14
KTVDU2	*	35.27	-2.08	-2.36	39.75	-1.61	-2.88
KUMC9Y		37.40	0.05	0.05	40.90	-0.46	-0.82
KY4J4E		37.40	0.05	0.05	41.50	0.14	0.26
L2FZ9A		38.30	0.95	1.08	42.10	0.74	1.33
LA664B	*	34.86	-2.50	-2.83	40.59	-0.77	-1.38
LAZ2XD		37.39	0.04	0.04	42.22	0.86	1.54
M3H2AE		37.00	-0.35	-0.40	41.10	-0.26	-0.46
M43XAY		37.35	0.00	0.00	41.63	0.27	0.49
MX78ZA		38.50	1.15	1.30	42.00	0.64	1.15
PGAKVU		37.94	0.59	0.67	41.50	0.14	0.25
Q639J7		37.80	0.45	0.51	41.20	-0.16	-0.28
R86LK6	X	36.69	-0.66	-0.74	39.48	-1.88	-3.36
TBFF2G	*	34.70	-2.65	-3.01	40.70	-0.66	-1.17

Fasteners and Metals Interlaboratory Testing Program

Analysis 106

Yield Strength: Lab-Machined Flat Aluminum
ASTM B557

		Sample R61			Sample R62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
TNH3U7		36.50	-0.85	-0.97	41.10	-0.26	-0.46
VUYZCU		37.50	0.15	0.17	41.40	0.04	0.08
W3TN3E	X	39.40	2.05	2.32	43.70	2.34	4.19
WM6URU	X	37.22	-0.13	-0.15	39.17	-2.19	-3.92
WMHKL7		36.70	-0.65	-0.74	40.50	-0.86	-1.53
XFCUGZ		37.00	-0.35	-0.40	41.80	0.44	0.79
XLEZV4		36.70	-0.65	-0.74	41.60	0.24	0.44
YL8DRU		38.58	1.23	1.39	42.55	1.20	2.14
YT8V78		38.19	0.84	0.95	41.35	-0.01	-0.01
ZJDWUE	M	No Data Reported			41.50	0.14	0.26

Summary Statistics

	Sample R61		Sample R62	
Grand Means	37.35	ksi	41.36	ksi
Stnd Dev Btwn Labs	0.88	ksi	0.56	ksi

Samples R61, R62 : 16G 6061-T6 (A), 14G 6061-T6 (B)

Statistics based on 51 of 57 reporting participants

Comments on Assigned Data Flags for Test #106

2XE3HV (X) - Data for sample R62 are low.

HGWH9U (X) - Data for both samples are high.

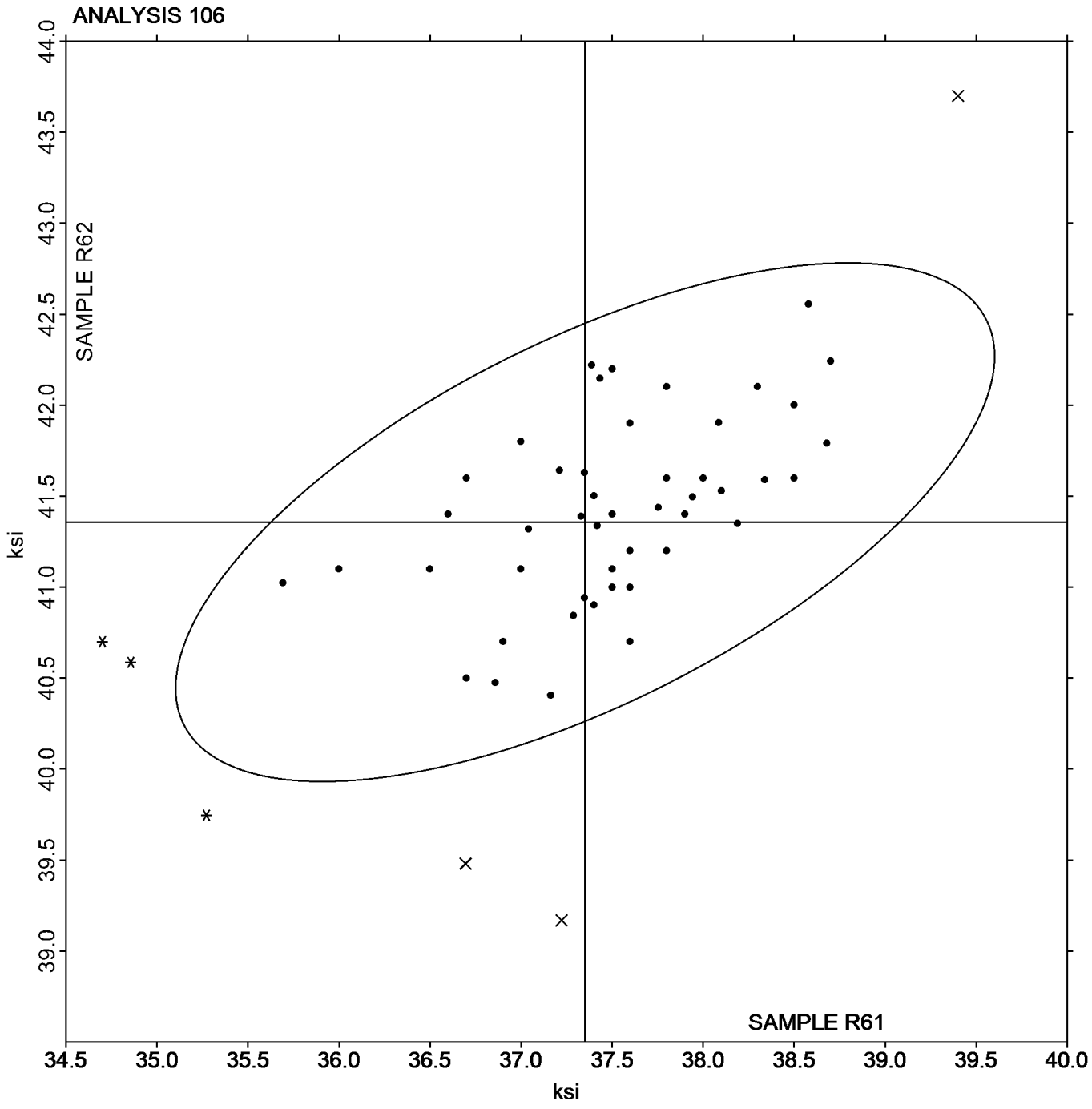
R86LK6 (X) - Data for sample R62 are low.

W3TN3E (X) - Data for sample R62 are high.

WM6URU (X) - Data for sample R62 are low.

ZJDWUE (M) - Participant did not submit data for sample R61.

SAMPLE R61	SAMPLE R62
37.35 ksi	41.36 ksi



		Sample R61			Sample R62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
29Y9GK		14.17	-0.19	-0.22	15.58	0.22	0.21
2CVZNW		14.50	0.14	0.16	15.40	0.04	0.04
2HCK6N		13.30	-1.06	-1.23	14.70	-0.66	-0.61
2HT7W9		15.40	1.04	1.20	16.30	0.94	0.88
2RVGBB		14.60	0.24	0.28	14.90	-0.46	-0.43
2VL2DE		15.70	1.34	1.55	16.70	1.34	1.25
2XE3HV	X	32.67	18.31	21.17	33.00	17.64	16.46
2XLXGA		13.00	-1.36	-1.57	15.00	-0.36	-0.33
6F4D3Z		15.44	1.08	1.25	16.18	0.82	0.77
6HGCMF		14.90	0.54	0.62	16.60	1.24	1.16
7FB9D6		13.50	-0.86	-0.99	14.40	-0.96	-0.89
8FZQZX		15.20	0.84	0.97	16.80	1.44	1.35
8HUH4G		13.60	-0.76	-0.88	15.80	0.44	0.41
8HZM3T		14.00	-0.36	-0.42	14.60	-0.76	-0.71
8UKV38		14.00	-0.36	-0.42	16.70	1.34	1.25
9D6DCQ		13.00	-1.36	-1.57	13.00	-2.36	-2.20
9D7JUR		12.50	-1.86	-2.15	14.00	-1.36	-1.27
9HPEXJ		16.20	1.84	2.13	16.50	1.14	1.07
9RPTFQ		15.50	1.14	1.32	16.50	1.14	1.07
BV6TX4		14.72	0.36	0.42	17.20	1.84	1.72
CW9YLN		14.30	-0.06	-0.07	14.90	-0.46	-0.43
D24PKD		14.10	-0.26	-0.30	14.80	-0.56	-0.52
D4NYUX		14.60	0.24	0.28	16.40	1.04	0.97
EUBNJK		13.50	-0.86	-0.99	14.50	-0.86	-0.80
FWU3MK		14.50	0.14	0.16	16.00	0.64	0.60
G9NFHB		13.20	-1.16	-1.34	13.90	-1.46	-1.36
GBDVZJ		15.70	1.34	1.55	16.20	0.84	0.79
GLVJQC		14.15	-0.21	-0.24	14.83	-0.53	-0.49
H3KXVV		14.30	-0.06	-0.07	14.70	-0.66	-0.61
HGWH9U	X	16.70	2.34	2.71	8.830	-6.53	-6.09
KMVVUG		14.60	0.24	0.28	15.10	-0.26	-0.24
KTVDU2		14.50	0.14	0.16	15.50	0.14	0.13
KUMC9Y		15.00	0.64	0.74	15.50	0.14	0.13
KY4J4E		15.00	0.64	0.74	15.00	-0.36	-0.33
L2FZ9A		13.00	-1.36	-1.57	14.50	-0.86	-0.80
LA664B	*	14.25	-0.11	-0.13	17.30	1.94	1.81
LAZ2XD		14.20	-0.16	-0.18	15.20	-0.16	-0.15
M3H2AE		14.70	0.34	0.39	15.90	0.54	0.51
M43XAY		15.40	1.04	1.20	15.70	0.34	0.32
MX78ZA		13.50	-0.86	-0.99	13.50	-1.86	-1.73
PGAKVU		14.96	0.60	0.69	15.94	0.58	0.54
Q639J7		13.00	-1.36	-1.57	14.00	-1.36	-1.27
R86LK6		16.00	1.64	1.90	17.00	1.64	1.53
TBFF2G	X	11.60	-2.76	-3.19	14.80	-0.56	-0.52
TNH3U7		14.40	0.04	0.05	15.30	-0.06	-0.05
VUYZCU		14.20	-0.16	-0.18	14.70	-0.66	-0.61
W3TN3E	*	13.20	-1.16	-1.34	12.40	-2.96	-2.76

		Sample R61			Sample R62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
WM6URU		15.00	0.64	0.74	16.00	0.64	0.60
WMHKL7	X	11.00	-3.36	-3.88	12.50	-2.86	-2.67
XFCUGZ		14.50	0.14	0.16	15.00	-0.36	-0.33
XLEZV4		14.30	-0.06	-0.07	15.20	-0.16	-0.15
YL8DRU		14.30	-0.06	-0.07	16.50	1.14	1.07
YT8V78		13.40	-0.96	-1.11	14.60	-0.76	-0.71
ZJDWUE		15.00	0.64	0.74	15.00	-0.36	-0.33

Summary Statistics

	Sample R61		Sample R62	
Grand Means	14.36	Percent	15.36	Percent
Stnd Dev Btwn Labs	0.87	Percent	1.07	Percent

Samples R61, R62 : 16G 6061-T6 (A), 14G 6061-T6 (B)

Statistics based on 50 of 54 reporting participants

Comments on Assigned Data Flags for Test #107

2XE3HV (X) - Data for both samples are very high.

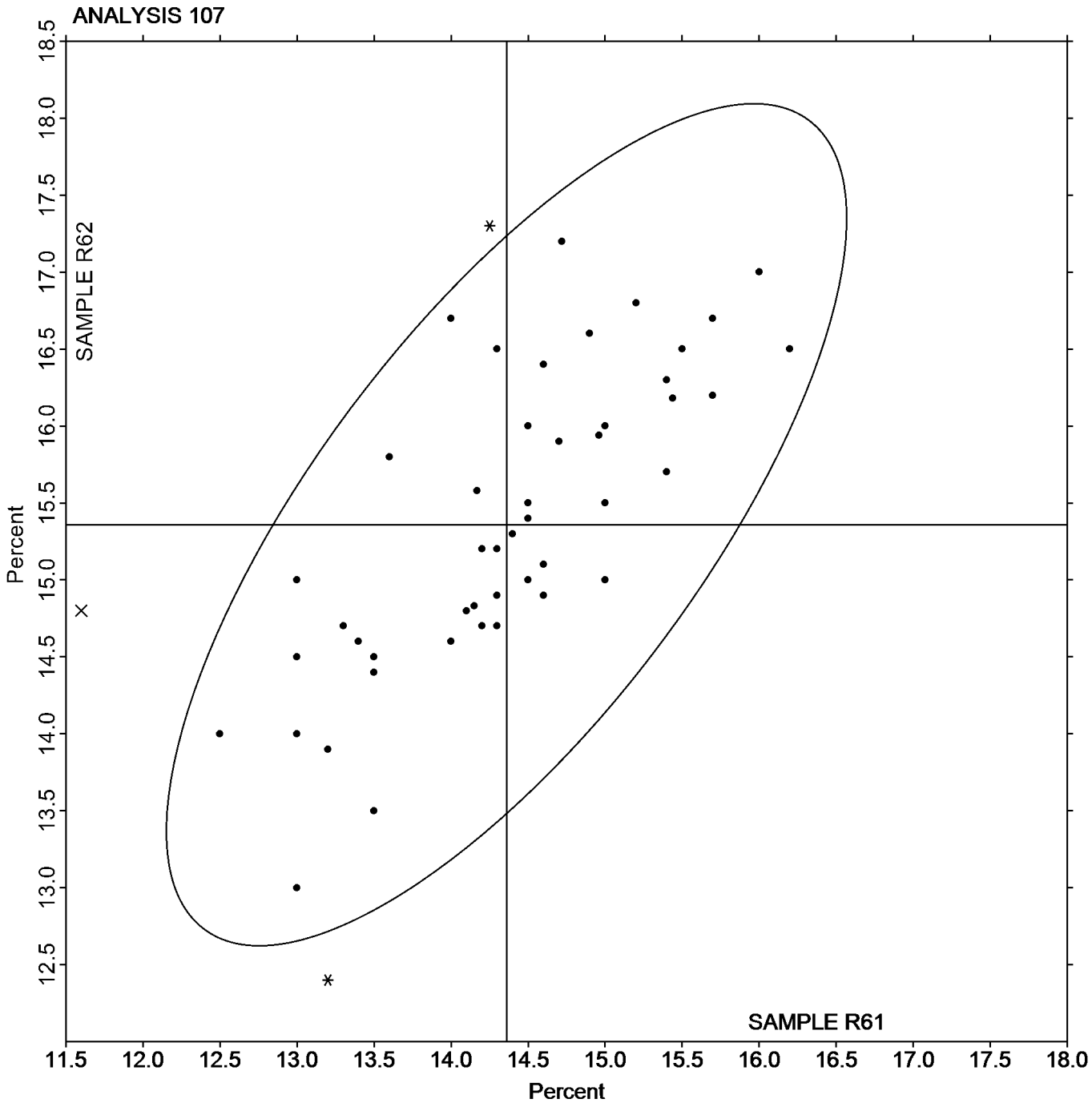
HGWH9U (X) - Data for sample R62 are low.

TBFF2G (X) - Data for sample R61 are low.

WMHKL7 (X) - Data for sample R61 are low.

SAMPLE R61
14.36 Percent

SAMPLE R62
15.36 Percent



		Sample A61			Sample A62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
28TTJE		138.97	-1.45	-1.42	139.53	-3.03	-1.96
2JTP7L	*	139.00	-1.42	-1.39	144.00	1.44	0.93
2NZEBM		141.60	1.18	1.16	141.50	-1.06	-0.69
2UDW7B		140.64	0.22	0.22	143.66	1.10	0.71
2XE3HV		141.58	1.16	1.14	143.29	0.73	0.47
33YPBD		141.40	0.98	0.96	142.40	-0.16	-0.11
3RHNAL		141.12	0.70	0.69	142.40	-0.16	-0.11
4BJLRZ		142.97	2.55	2.50	145.47	2.91	1.88
4N6Y4A		139.80	-0.62	-0.61	142.60	0.04	0.02
4NBUM2		138.66	-1.76	-1.73	140.25	-2.31	-1.50
4PGZL3		140.12	-0.30	-0.30	143.07	0.51	0.33
4VQNBH		140.25	-0.17	-0.17	142.86	0.30	0.19
7NC6UG		139.84	-0.58	-0.57	140.31	-2.25	-1.46
7XNVWR		139.00	-1.42	-1.39	140.00	-2.56	-1.66
83HAY8		139.60	-0.82	-0.81	141.80	-0.76	-0.49
84KKK4		141.22	0.80	0.79	142.09	-0.47	-0.30
8HUH4G		140.10	-0.32	-0.32	140.80	-1.76	-1.14
9832FU		141.18	0.76	0.75	144.10	1.53	0.99
AEDM33		141.18	0.76	0.75	144.10	1.53	0.99
AMG8E6		140.00	-0.42	-0.41	140.00	-2.56	-1.66
B3LYLE		140.70	0.28	0.27	143.20	0.64	0.41
BMQ642		139.24	-1.18	-1.16	142.72	0.15	0.10
CF2ZGQ		140.93	0.51	0.50	143.05	0.49	0.32
DFLDYG		141.41	0.99	0.97	144.46	1.89	1.23
EUMATT		139.60	-0.82	-0.81	140.40	-2.16	-1.40
FBKH6R		139.56	-0.86	-0.84	142.54	-0.02	-0.02
FJVC7T		139.59	-0.83	-0.81	143.69	1.12	0.73
FK6J6E		139.67	-0.75	-0.73	143.44	0.88	0.57
FXNTQD	M	141.10	0.67	0.66	No Data Reported		
GAH8LU		139.50	-0.92	-0.90	142.60	0.04	0.02
GLVJQC		142.42	2.00	1.96	145.19	2.63	1.70
HARRK4		142.06	1.64	1.61	142.72	0.16	0.10
J2VGGC		140.00	-0.42	-0.41	142.60	0.04	0.02
JKGKXE		141.01	0.59	0.57	143.23	0.66	0.43
JWN3FL		139.53	-0.89	-0.88	142.28	-0.28	-0.18
KH9E4V		140.70	0.28	0.27	141.50	-1.06	-0.69
KJG4XM		140.00	-0.42	-0.41	142.00	-0.56	-0.36
LA664B		139.46	-0.96	-0.94	142.03	-0.54	-0.35
LDNBD7		141.27	0.85	0.83	142.42	-0.15	-0.09
LL4H8A		139.55	-0.87	-0.85	142.31	-0.25	-0.16
LTBWEY		140.50	0.08	0.08	141.60	-0.96	-0.62
M2EHP7		139.35	-1.07	-1.05	139.95	-2.61	-1.69
MAKF49		140.02	-0.40	-0.39	144.01	1.45	0.94
MCV62R		139.20	-1.22	-1.20	140.49	-2.08	-1.34
MCW4TE		139.88	-0.55	-0.54	141.59	-0.98	-0.63
NF3U3T	X	144.92	4.50	4.41	145.39	2.82	1.83
Q9WQHD		140.70	0.28	0.27	144.90	2.34	1.51

WebCode	Data Flag	Sample A61 Lab Mean	Sample A61 Diff. from Grand Mean	Sample A61 CPV	Sample A62 Lab Mean	Sample A62 Diff. from Grand Mean	Sample A62 CPV
QV8XMB		140.00	-0.42	-0.41	143.00	0.44	0.28
RMTEWJ	X	146.49	6.07	5.95	143.88	1.31	0.85
RPYFW3		141.27	0.85	0.83	144.31	1.75	1.13
TWDJM2		141.99	1.57	1.54	144.60	2.04	1.32
UKB7LM		140.52	0.10	0.10	144.24	1.68	1.09
UZXU9C		141.20	0.78	0.76	141.00	-1.56	-1.01
XYRH3J		140.11	-0.31	-0.31	141.12	-1.44	-0.93
YNGDW2		142.72	2.30	2.25	145.90	3.34	2.16

Summary Statistics

	Sample A61		Sample A62	
Grand Means	140.42	ksi	142.56	ksi
Stnd Dev Btwn Labs	1.02	ksi	1.55	ksi

Samples A61, A62 : AISI 4340 (L), AISI 4340 (S)

Statistics based on 52 of 55 reporting participants

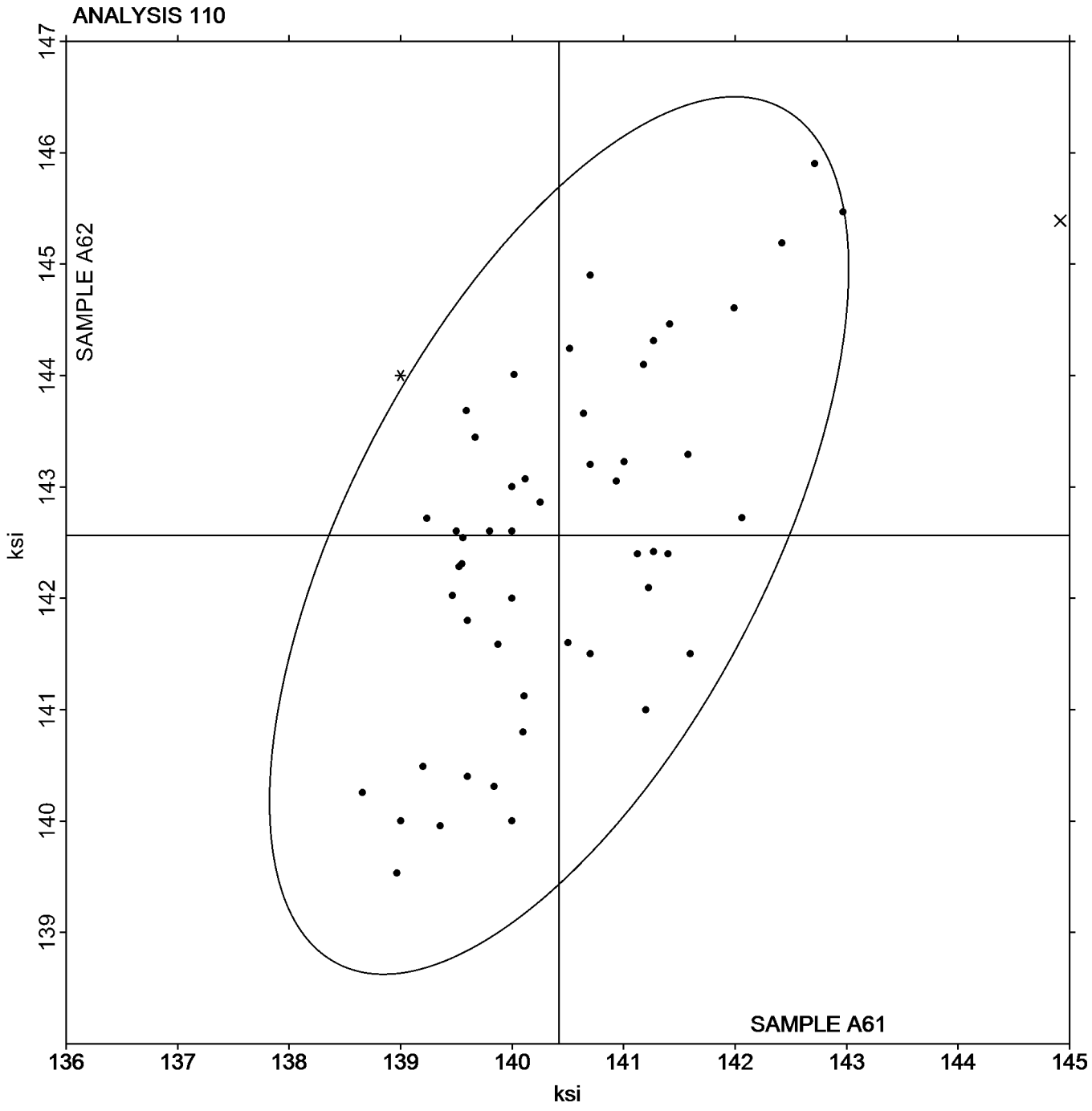
Comments on Assigned Data Flags for Test #110

FXNTQD (M) - Participant did not submit data for sample A62.

NF3U3T (X) - Data for sample A61 are high.

RMTEWJ (X) - Data for sample A61 are high.

SAMPLE A61	SAMPLE A62
140.42 ksi	142.56 ksi



		Sample A61			Sample A62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2JTP7L	X	123.00	10.41	6.03	119.00	3.22	1.67
2NZEBM		114.10	1.51	0.88	114.70	-1.08	-0.56
2UDW7B		112.07	-0.52	-0.30	116.36	0.59	0.31
2XE3HV		113.58	0.99	0.58	115.83	0.05	0.03
33YPBD		112.30	-0.29	-0.17	114.10	-1.68	-0.87
3RHNAL		116.38	3.79	2.20	117.45	1.68	0.87
4BJLRZ		114.47	1.89	1.09	118.39	2.61	1.36
4N6Y4A		111.90	-0.69	-0.40	115.60	-0.18	-0.09
4NBUM2		110.95	-1.63	-0.95	113.71	-2.06	-1.07
4PGZL3		112.53	-0.05	-0.03	116.10	0.32	0.17
4VQNBH		111.39	-1.20	-0.69	115.45	-0.32	-0.17
7NC6UG	*	111.51	-1.08	-0.62	111.14	-4.64	-2.41
7XNVWR		111.00	-1.59	-0.92	113.00	-2.78	-1.44
83HAY8		110.90	-1.69	-0.98	113.90	-1.88	-0.97
84KKK4		112.46	-0.12	-0.07	115.39	-0.38	-0.20
8HUH4G		111.60	-0.99	-0.57	113.20	-2.58	-1.34
9832FU		113.44	0.85	0.49	117.08	1.30	0.68
AEDM33		112.26	-0.33	-0.19	115.97	0.20	0.10
AMG8E6		112.00	-0.59	-0.34	114.00	-1.78	-0.92
B3LYLE		111.90	-0.69	-0.40	115.70	-0.08	-0.04
BMQ642	*	117.34	4.75	2.75	120.09	4.32	2.24
CF2ZGQ		113.12	0.53	0.31	116.60	0.82	0.43
DFLDYG		112.26	-0.33	-0.19	116.61	0.84	0.43
EUMATT		111.90	-0.69	-0.40	114.20	-1.58	-0.82
FBKH6R		111.45	-1.14	-0.66	115.30	-0.48	-0.25
FJVC7T		111.83	-0.76	-0.44	116.51	0.73	0.38
FK6J6E		113.28	0.69	0.40	117.92	2.14	1.11
FXNTQD	M	112.52	-0.07	-0.04	No Data Reported		
GAH8LU		111.50	-1.09	-0.63	115.50	-0.28	-0.14
GLVJQC		112.58	0.00	0.00	117.29	1.52	0.79
HARRK4		108.86	-3.73	-2.16	113.00	-2.78	-1.44
J2VGGC		112.60	0.01	0.01	119.00	3.22	1.67
JKGKXE		112.33	-0.25	-0.15	115.76	-0.02	-0.01
KH9E4V		112.60	0.01	0.01	113.90	-1.88	-0.97
KJG4XM		111.00	-1.59	-0.92	116.00	0.22	0.12
LA664B		111.29	-1.29	-0.75	115.31	-0.47	-0.24
LDNBD7		116.35	3.76	2.18	117.37	1.60	0.83
LL4H8A		111.99	-0.60	-0.35	115.70	-0.08	-0.04
LTBWEY		111.90	-0.69	-0.40	114.00	-1.78	-0.92
M2EHP7	*	117.08	4.49	2.60	119.42	3.64	1.89
MAKF49	X	106.33	-6.26	-3.63	116.68	0.91	0.47
MCV62R		110.81	-1.78	-1.03	112.95	-2.83	-1.47
MCW4TE		111.09	-1.50	-0.87	113.78	-1.99	-1.03
Q9WQHD		112.20	-0.39	-0.22	118.50	2.72	1.42
QV8XMB		112.00	-0.59	-0.34	116.00	0.22	0.12
RMTEWJ	X	117.19	4.60	2.67	114.58	-1.19	-0.62
RPYFW3		112.70	0.11	0.06	117.05	1.27	0.66

Analysis 111

Yield Strength: Pre-Machined Round Steel
ASTM E8

WebCode	Data Flag	Sample A61 Lab Mean	Sample A61 Diff. from Grand Mean	Sample A61 CPV	Sample A62 Lab Mean	Sample A62 Diff. from Grand Mean	Sample A62 CPV
TWDJM2		111.97	-0.62	-0.36	116.76	0.98	0.51
UZXU9C		112.30	-0.29	-0.17	114.20	-1.58	-0.82
XYRH3J		115.89	3.30	1.91	116.47	0.69	0.36
YNGDW2		114.63	2.05	1.19	119.19	3.41	1.77

Summary Statistics

	Sample A61		Sample A62	
Grand Means	112.59	ksi	115.78	ksi
Stnd Dev Btwn Labs	1.73	ksi	1.93	ksi

Samples A61, A62 : AISI 4340 (L), AISI 4340 (S)

Statistics based on 47 of 51 reporting participants

Comments on Assigned Data Flags for Test #111

2JTP7L (X) - Data for sample A61 are high.

FXNTQD (M) - Participant did not submit data for sample A62.

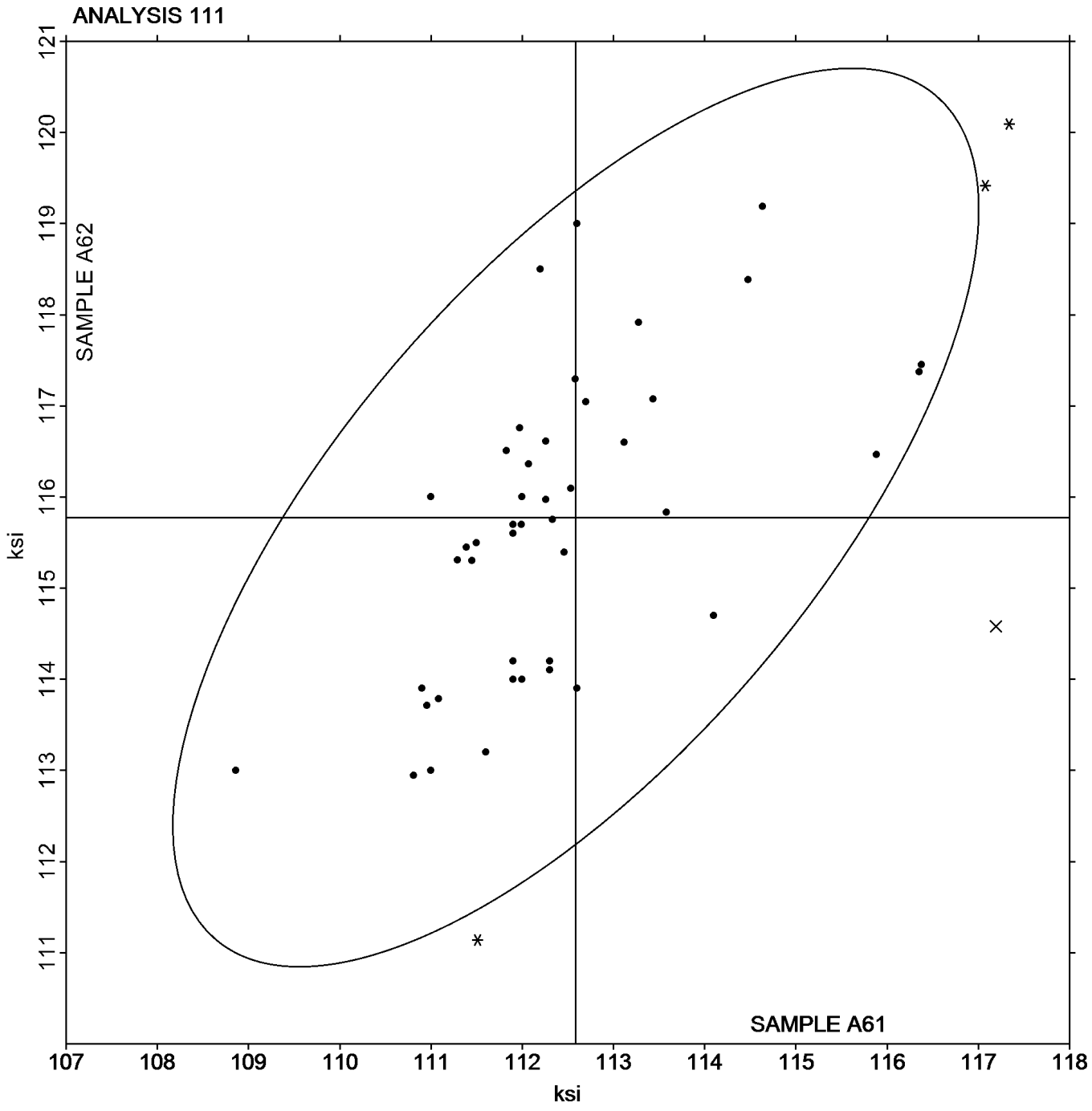
MAKF49 (X) - Data for sample A61 are low.

RMTEWJ (X) - Inconsistent in testing between samples.

Analysis 111

Yield Strength: Pre-Machined Round Steel
ASTM E8

SAMPLE A61	SAMPLE A62
112.59 ksi	115.78 ksi



		Sample A61			Sample A62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2JTP7L		17.20	-0.63	-1.63	17.10	-0.77	-1.35
2NZEBM		17.80	-0.03	-0.09	18.10	0.23	0.41
2UDW7B		17.80	-0.03	-0.09	17.60	-0.27	-0.47
2XE3HV		17.75	-0.08	-0.22	17.82	-0.05	-0.08
33YPBD		18.00	0.17	0.43	18.40	0.53	0.94
3RHNAL		17.25	-0.58	-1.50	17.40	-0.47	-0.82
4BJLRZ		17.54	-0.29	-0.76	17.22	-0.65	-1.14
4N6Y4A	*	17.69	-0.14	-0.37	16.39	-1.48	-2.60
4NBUM2		18.00	0.17	0.43	17.80	-0.07	-0.12
4PGZL3		18.15	0.32	0.82	17.29	-0.58	-1.01
4VQNBH		18.00	0.17	0.43	17.90	0.03	0.06
7NC6UG		18.40	0.57	1.46	17.85	-0.02	-0.03
7XNVWR		17.90	0.07	0.17	17.70	-0.17	-0.29
83HAY8		17.97	0.14	0.35	17.71	-0.16	-0.28
84KKK4		17.90	0.07	0.17	18.30	0.43	0.76
8HUH4G		18.10	0.27	0.69	18.10	0.23	0.41
9832FU		18.50	0.67	1.72	17.30	-0.57	-1.00
AEDM33		17.80	-0.03	-0.09	17.70	-0.17	-0.29
AMG8E6		18.00	0.17	0.43	18.00	0.13	0.23
B3LYLE		18.00	0.17	0.43	17.50	-0.37	-0.65
BMQ642		18.00	0.17	0.43	19.00	1.13	1.99
CF2ZGQ		18.20	0.37	0.94	17.70	-0.17	-0.29
DFLDYG		17.00	-0.83	-2.15	17.00	-0.87	-1.52
EUMATT		18.00	0.17	0.43	18.30	0.43	0.76
FBKH6R		17.45	-0.38	-0.99	17.75	-0.12	-0.21
FJVC7T	X	17.30	-0.53	-1.38	19.90	2.03	3.57
FK6J6E		18.00	0.17	0.43	17.70	-0.17	-0.29
FXNTQD	M	17.75	-0.08	-0.22	No Data Reported		
GAH8LU	X	16.44	-1.39	-3.59	16.09	-1.78	-3.12
GLVJQC		18.14	0.30	0.78	17.64	-0.22	-0.39
HARRK4		17.20	-0.63	-1.63	18.10	0.23	0.41
J2VGGC	*	18.70	0.87	2.23	17.40	-0.47	-0.82
JKGKXE		17.80	-0.03	-0.09	17.60	-0.27	-0.47
JWN3FL		18.00	0.17	0.43	18.88	1.01	1.78
KH9E4V		18.30	0.47	1.20	18.70	0.83	1.46
KJG4XM		18.00	0.17	0.43	19.00	1.13	1.99
LA664B		17.95	0.12	0.30	17.50	-0.37	-0.65
LDNBD7		17.20	-0.63	-1.63	17.45	-0.42	-0.73
LL4H8A		18.00	0.17	0.43	19.00	1.13	1.99
LTBWEY		17.80	-0.03	-0.09	17.90	0.03	0.06
M2EHP7		18.26	0.43	1.10	18.74	0.87	1.53
MAKF49		17.90	0.07	0.17	17.90	0.03	0.06
MCV62R		18.10	0.27	0.69	18.35	0.48	0.85
MCW4TE		17.70	-0.13	-0.34	18.30	0.43	0.76
Q9WQHD	X	19.05	1.22	3.14	17.20	-0.67	-1.17
QV8XMB		17.00	-0.83	-2.15	18.00	0.13	0.23
RMTEWJ		17.60	-0.23	-0.60	18.10	0.23	0.41

WebCode	Data Flag	Sample A61 Lab Mean	Sample A61 Diff. from Grand Mean	Sample A61 CPV	Sample A62 Lab Mean	Sample A62 Diff. from Grand Mean	Sample A62 CPV
RPYFW3		17.40	-0.43	-1.12	17.60	-0.27	-0.47
TWDJM2		17.00	-0.83	-2.15	17.00	-0.87	-1.52
UKB7LM		17.66	-0.17	-0.45	17.44	-0.43	-0.75
UZXU9C		18.20	0.37	0.94	18.70	0.83	1.46
XYRH3J		17.70	-0.13	-0.34	17.70	-0.17	-0.29
YNGDW2	X	16.30	-1.53	-3.95	16.00	-1.87	-3.28

Summary Statistics

	Sample A61		Sample A62	
Grand Means	17.83	Percent	17.87	Percent
Stnd Dev Btwn Labs	0.39	Percent	0.57	Percent

Samples A61, A62 : AISI 4340 (L), AISI 4340 (S)

Statistics based on 48 of 53 reporting participants

Comments on Assigned Data Flags for Test #112

FJVC7T (X) - Data for sample A62 are high.

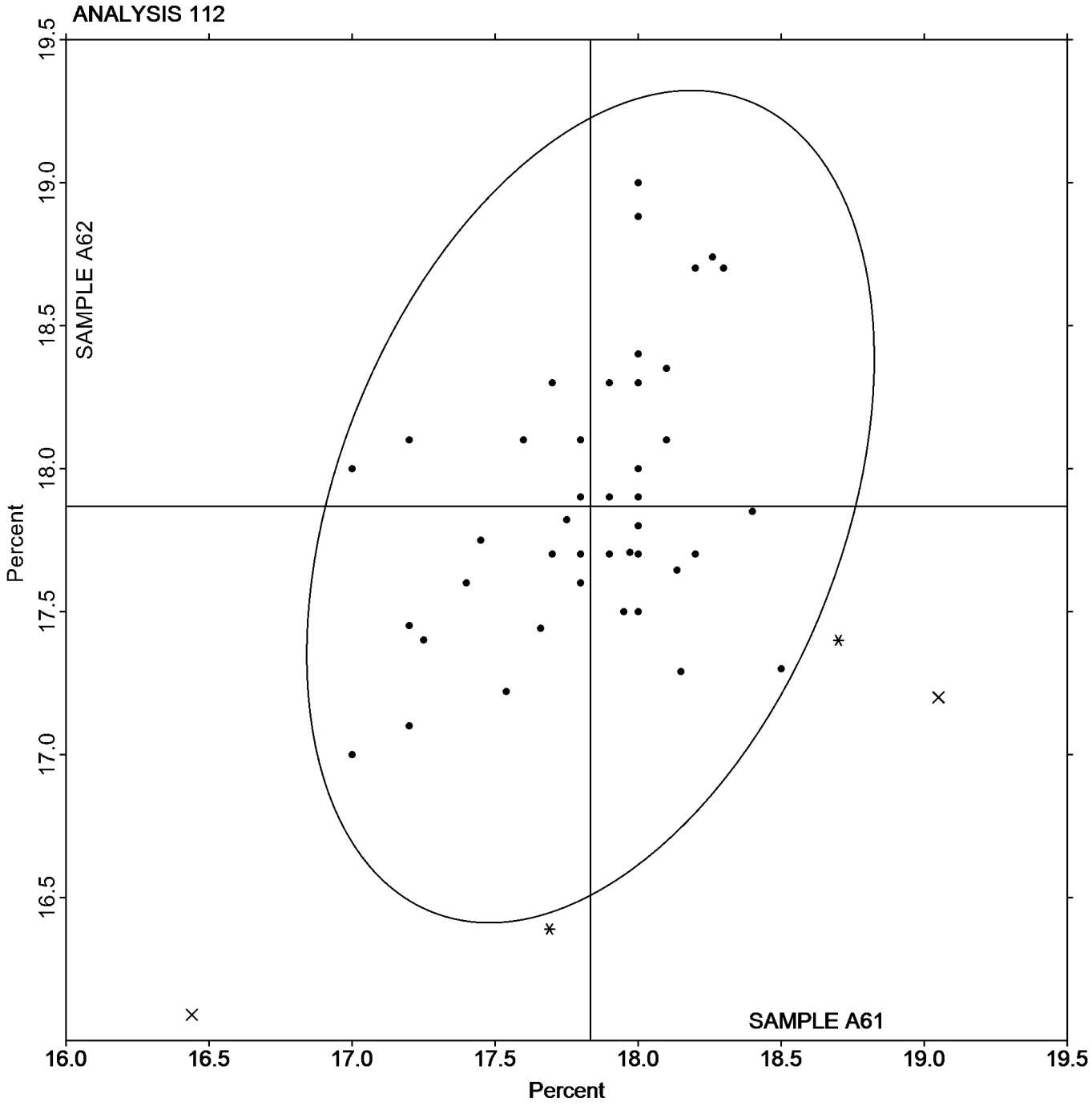
FXNTQD (M) - Participant did not submit data for sample A62.

GAH8LU (X) - Data for both samples are low.

Q9WQHD (X) - Data for sample A61 are high.

YNGDW2 (X) - Data for both samples are low.

SAMPLE A61	SAMPLE A62
17.83 Percent	17.87 Percent



		Sample A61			Sample A62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2JTP7L		54.80	1.47	1.50	53.13	-1.04	-0.96
2NZEBM		52.90	-0.43	-0.45	53.60	-0.57	-0.53
2UDW7B		54.50	1.17	1.19	53.80	-0.37	-0.34
2XE3HV		52.39	-0.94	-0.97	51.69	-2.48	-2.29
33YPBD		53.50	0.17	0.17	55.60	1.43	1.32
3RHNAL		53.30	-0.03	-0.04	54.00	-0.17	-0.16
4BJLRZ		53.88	0.55	0.56	52.65	-1.51	-1.40
4N6Y4A	X	53.03	-0.30	-0.31	49.02	-5.15	-4.77
4NBUM2		54.00	0.67	0.68	54.00	-0.17	-0.16
4PGZL3		53.45	0.12	0.12	52.21	-1.96	-1.81
4VQNBH		53.40	0.07	0.07	53.30	-0.87	-0.80
7NC6UG		53.22	-0.11	-0.12	54.66	0.49	0.45
7XNVWR		52.60	-0.73	-0.75	53.30	-0.87	-0.80
83HAY8		54.39	1.06	1.09	54.39	0.23	0.21
8HUH4G		53.80	0.47	0.48	55.60	1.43	1.32
AEDM33		54.50	1.17	1.19	53.70	-0.47	-0.43
AMG8E6		55.00	1.67	1.71	55.00	0.83	0.77
B3LYLE		54.00	0.67	0.68	55.00	0.83	0.77
BMQ642		52.00	-1.33	-1.37	54.00	-0.17	-0.16
DFLDYG		52.00	-1.33	-1.37	54.00	-0.17	-0.16
EUMATT		54.00	0.67	0.68	55.00	0.83	0.77
FBKH6R		52.94	-0.39	-0.40	53.59	-0.58	-0.54
FJVC7T		53.10	-0.23	-0.24	55.40	1.23	1.14
FK6J6E		54.70	1.37	1.40	55.30	1.13	1.05
FXNTQD	M	53.05	-0.28	-0.29	No Data Reported		
GAH8LU		54.39	1.06	1.08	54.03	-0.14	-0.13
HARRK4		53.40	0.07	0.07	55.80	1.63	1.51
JKGKXE		54.40	1.07	1.09	54.20	0.03	0.03
JWN3FL		53.82	0.49	0.50	54.04	-0.13	-0.12
KH9E4V	*	50.40	-2.93	-3.01	51.80	-2.37	-2.19
LA664B		53.21	-0.12	-0.13	54.13	-0.04	-0.04
LDNBD7		53.59	0.25	0.26	54.26	0.10	0.09
LL4H8A		53.00	-0.33	-0.34	55.00	0.83	0.77
LTBWEY		51.50	-1.83	-1.88	53.30	-0.87	-0.80
M2EHP7		53.40	0.07	0.07	55.83	1.66	1.54
MAKF49		53.50	0.17	0.17	54.30	0.13	0.12
MCV62R		52.75	-0.58	-0.60	56.35	2.18	2.02
MCW4TE		53.10	-0.23	-0.24	54.90	0.73	0.68
Q9WQHD	X	32.56	-20.77	-21.28	32.60	-21.57	-19.97
QV8XMB		53.00	-0.33	-0.34	54.00	-0.17	-0.16
RPYFW3		52.40	-0.93	-0.96	53.40	-0.77	-0.71
TWDJM2		53.00	-0.33	-0.34	53.00	-1.17	-1.08
UZXU9C		53.60	0.27	0.27	55.40	1.23	1.14
XYRH3J		54.00	0.67	0.68	55.00	0.83	0.77
YNGDW2		51.22	-2.11	-2.17	53.42	-0.75	-0.69

Summary Statistics

	Sample A61		Sample A62	
Grand Means	53.33	Percent	54.17	Percent
Stnd Dev Btwn Labs	0.98	Percent	1.08	Percent

Samples A61, A62 : AISI 4340 (L), AISI 4340 (S)

Statistics based on 42 of 45 reporting participants

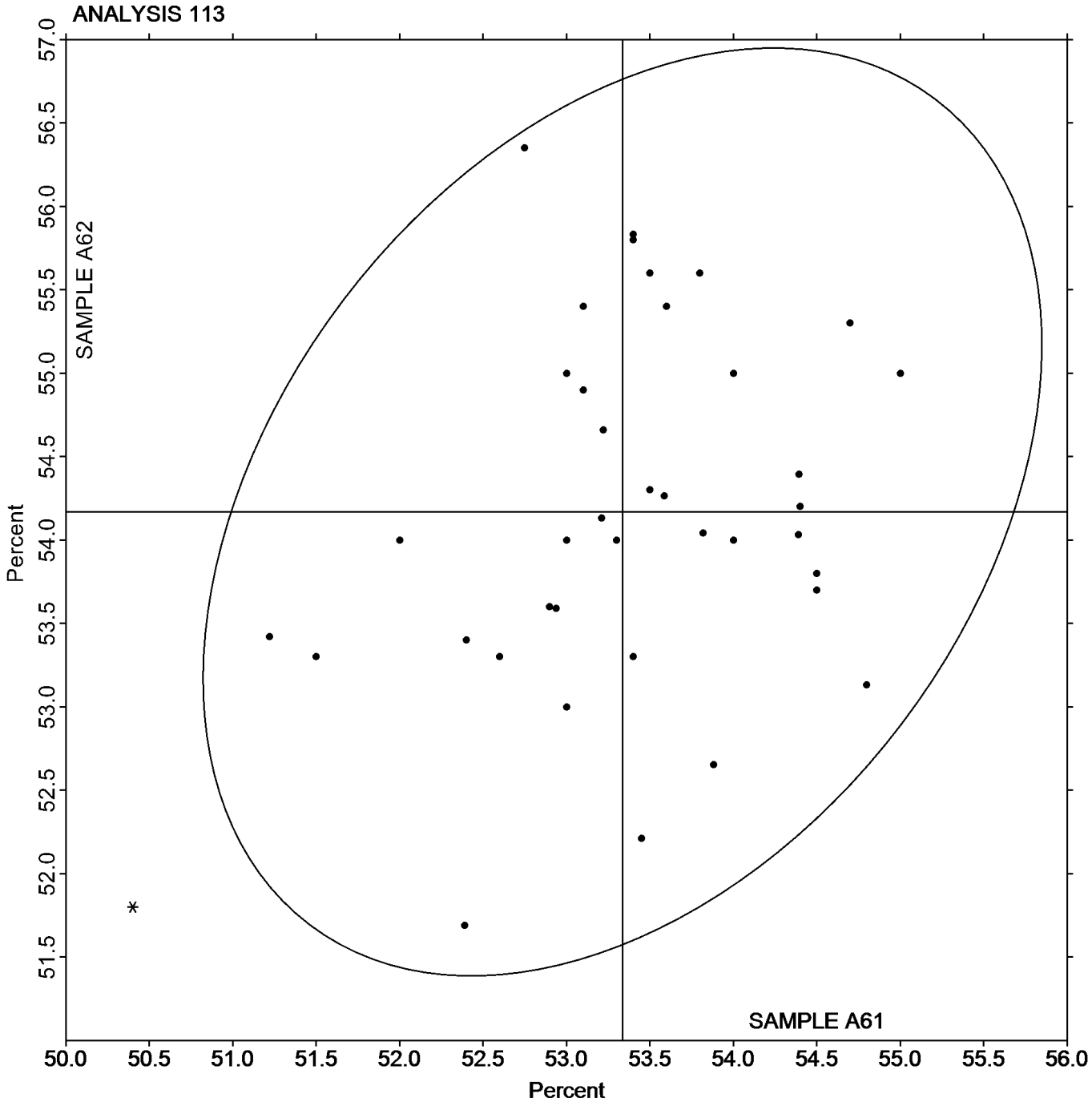
Comments on Assigned Data Flags for Test #113

4N6Y4A (X) - Data for sample A62 are low.

FXNTQD (M) - Participant did not submit data for sample A62.

Q9WQHD (X) - Data for both samples are very low.

SAMPLE A61	SAMPLE A62
53.33 Percent	54.17 Percent



		Sample N61			Sample N62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
29YBHB		94.52	-0.86	-1.46	94.56	-1.21	-1.98
2HT7W9		94.72	-0.66	-1.12	95.08	-0.69	-1.13
2NZEBM		95.44	0.06	0.10	94.98	-0.79	-1.29
2XE3HV		95.98	0.60	1.02	96.22	0.45	0.73
2Z936R		95.56	0.18	0.30	96.50	0.73	1.19
33YPBD	X	93.44	-1.94	-3.29	95.70	-0.07	-0.12
3YD8BB		95.44	0.06	0.10	95.94	0.17	0.27
42CGLH		94.98	-0.40	-0.68	94.96	-0.81	-1.32
4H3HHM		94.66	-0.72	-1.22	95.52	-0.25	-0.41
4N6Y4A		95.58	0.20	0.34	96.10	0.33	0.53
63N4QW		96.58	1.20	2.03	96.72	0.95	1.54
6EAPJ6		94.60	-0.78	-1.32	95.20	-0.57	-0.93
6MWTCC		96.32	0.94	1.59	96.62	0.85	1.38
6UAXTB		94.84	-0.54	-0.92	94.66	-1.11	-1.81
73FE4B		94.40	-0.98	-1.66	94.52	-1.25	-2.04
78QLC3		96.36	0.98	1.66	96.36	0.59	0.96
79DEJD		95.14	-0.24	-0.41	95.70	-0.07	-0.12
7AQXTA		95.00	-0.38	-0.64	95.18	-0.59	-0.97
7BRBQA		95.00	-0.38	-0.64	95.44	-0.33	-0.54
7F6KQD	X	94.90	-0.48	-0.81	94.14	-1.63	-2.66
7F8LXC		95.02	-0.36	-0.61	95.90	0.13	0.21
7M92LY		95.76	0.38	0.64	96.06	0.29	0.47
7MAP94		94.94	-0.44	-0.75	95.70	-0.07	-0.12
7XB2E7		95.92	0.54	0.92	95.98	0.21	0.34
83HAY8		95.64	0.26	0.44	96.22	0.45	0.73
8GGVL3		95.32	-0.06	-0.10	95.52	-0.25	-0.41
8GH89T		95.10	-0.28	-0.48	95.44	-0.33	-0.54
8NAFDW		95.42	0.04	0.06	96.24	0.46	0.75
8UKV38		95.00	-0.38	-0.64	95.40	-0.37	-0.61
9GFBHZ		95.60	0.22	0.37	96.00	0.23	0.37
9GPA8W		94.72	-0.66	-1.12	95.00	-0.77	-1.26
A4XCPB		95.44	0.06	0.10	95.88	0.11	0.17
AEJKJY		95.40	0.02	0.03	96.10	0.33	0.53
AQXXMF	*	93.94	-1.44	-2.44	95.10	-0.67	-1.10
AT4YMX		95.38	0.00	0.00	96.22	0.45	0.73
B67FPZ		95.79	0.41	0.69	96.19	0.42	0.68
CNKMPF		95.64	0.26	0.44	95.84	0.07	0.11
D4NYUX		94.60	-0.78	-1.32	94.90	-0.87	-1.42
DKPYC8		96.70	1.32	2.24	96.94	1.17	1.90
DP6E8J		95.48	0.10	0.17	96.20	0.43	0.70
DXN7TV		95.88	0.50	0.85	96.32	0.55	0.89
EAGUC3		95.46	0.08	0.14	95.52	-0.25	-0.41
EFEPU9		95.60	0.22	0.37	96.20	0.43	0.70
F6AGTW		95.52	0.14	0.24	95.00	-0.77	-1.26
FBKH6R		95.46	0.08	0.14	95.44	-0.33	-0.54
FCWBYU		94.92	-0.46	-0.78	95.86	0.09	0.14
FGETFW		94.74	-0.64	-1.09	95.38	-0.39	-0.64

		Sample N61			Sample N62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
FKTNZZ	X	97.86	2.48	4.21	98.58	2.81	4.57
FXNTQD		94.68	-0.70	-1.19	95.48	-0.29	-0.48
FZGZE3		94.54	-0.84	-1.42	94.78	-0.99	-1.62
GAH8LU		95.42	0.04	0.07	96.00	0.23	0.37
GBH6YB		95.98	0.60	1.01	96.41	0.64	1.04
GFDHVD	*	97.16	1.78	3.02	97.30	1.53	2.49
GGHMC2		96.18	0.80	1.36	96.90	1.13	1.84
GMMH4N		94.54	-0.84	-1.42	94.72	-1.05	-1.72
GY3YXL		96.22	0.84	1.42	97.06	1.29	2.10
HANBYQ		95.44	0.06	0.10	95.68	-0.09	-0.15
HBELPJ		94.92	-0.46	-0.78	95.18	-0.59	-0.97
HJFNF4	X	94.96	-0.42	-0.71	45.80	-49.97	-81.44
HNZZMR		95.00	-0.38	-0.64	95.30	-0.47	-0.77
HWQ6EL		95.10	-0.28	-0.48	95.50	-0.27	-0.44
HX9BGC		95.20	-0.18	-0.31	96.40	0.63	1.02
HXPRAJ		95.24	-0.14	-0.24	95.62	-0.15	-0.25
J3DBRM		95.00	-0.38	-0.64	95.00	-0.77	-1.26
JF3QWT		94.94	-0.44	-0.75	95.84	0.07	0.11
JKGKXE		96.10	0.72	1.22	96.24	0.47	0.76
JXP2PM		95.44	0.06	0.10	96.08	0.31	0.50
K6GLKM		94.90	-0.48	-0.81	95.28	-0.49	-0.80
KFP8VV		96.10	0.72	1.22	96.62	0.85	1.38
KFZDUH		95.72	0.34	0.58	96.02	0.25	0.40
KJG4XM		95.28	-0.10	-0.17	95.67	-0.10	-0.17
KLNXVD		95.66	0.28	0.47	95.74	-0.03	-0.05
KTVDU2		95.78	0.40	0.68	96.02	0.25	0.40
KVY6U2		96.06	0.68	1.15	95.82	0.05	0.08
L2FZ9A		96.40	1.02	1.73	96.76	0.99	1.61
L4TF6A		95.34	-0.04	-0.07	95.70	-0.07	-0.12
L6V4TF		95.16	-0.22	-0.37	95.59	-0.18	-0.30
LA664B		95.14	-0.24	-0.41	95.42	-0.35	-0.57
LHJP48		94.56	-0.82	-1.39	95.52	-0.25	-0.41
MAKF49		95.22	-0.16	-0.27	96.22	0.45	0.73
MM7HFT		95.90	0.52	0.88	96.14	0.37	0.60
MR274M		95.44	0.06	0.10	95.84	0.07	0.11
MRGPNK		96.14	0.76	1.29	96.04	0.27	0.44
MUM2QF		95.86	0.48	0.81	96.70	0.93	1.51
MXMCMF		95.32	-0.06	-0.10	95.68	-0.09	-0.15
MYNGJH	X	93.04	-2.34	-3.97	93.70	-2.07	-3.38
N9RV4V		95.20	-0.18	-0.31	95.80	0.03	0.04
PKRTUT	*	94.86	-0.52	-0.88	94.46	-1.31	-2.14
PPVMPW		95.98	0.60	1.02	96.60	0.83	1.35
PXQQTT		95.38	0.00	0.00	95.46	-0.31	-0.51
Q6L8G4		96.20	0.82	1.39	96.60	0.83	1.35
Q9WQHD		95.60	0.22	0.37	96.20	0.43	0.70
QADFRX		95.64	0.26	0.44	95.82	0.05	0.08
QDWGYV		94.52	-0.86	-1.46	95.02	-0.75	-1.23

WebCode	Data Flag	Sample N61 Lab Mean	Sample N61 Diff. from Grand Mean	Sample N61 CPV	Sample N62 Lab Mean	Sample N62 Diff. from Grand Mean	Sample N62 CPV
QV8XMB	*	93.94	-1.44	-2.44	94.26	-1.51	-2.47
QVVLDR		95.62	0.24	0.41	96.34	0.57	0.92
QZY66J	*	93.96	-1.42	-2.41	95.30	-0.47	-0.77
R7Y88W		95.38	0.00	0.00	96.28	0.51	0.83
R86LK6		96.00	0.62	1.05	96.50	0.73	1.19
RGWYNB		95.38	0.00	0.00	95.68	-0.09	-0.15
RK2H8Q		95.86	0.48	0.81	95.42	-0.35	-0.57
RQE6GM	X	93.00	-2.38	-4.04	94.50	-1.27	-2.07
RZZ7XW		95.98	0.60	1.02	96.28	0.51	0.83
T6Q2Y3		95.40	0.02	0.03	95.80	0.03	0.04
T9PCU3		95.78	0.40	0.68	95.86	0.09	0.14
TLGJ3B	*	94.80	-0.58	-0.98	96.40	0.63	1.02
TUCGUJ		94.54	-0.84	-1.42	95.08	-0.69	-1.13
U9BQBX		96.16	0.78	1.32	96.54	0.77	1.25
UC6DJ8		95.54	0.16	0.27	96.28	0.51	0.83
UG3PLY		96.30	0.92	1.56	96.20	0.43	0.70
UPX92D		95.28	-0.10	-0.17	95.48	-0.29	-0.48
V9EMH2		95.28	-0.10	-0.17	95.54	-0.23	-0.38
WBQYEF		95.52	0.14	0.24	95.68	-0.09	-0.15
X37E8V		95.36	-0.02	-0.03	95.52	-0.25	-0.41
XHKLGZ	*	95.60	0.22	0.37	94.84	-0.93	-1.52
Y8GQXU		95.28	-0.10	-0.17	95.48	-0.29	-0.48
YA6QX7		95.40	0.02	0.03	96.00	0.23	0.37
YM92FZ		95.40	0.02	0.03	95.33	-0.44	-0.72
YXJN3D		96.14	0.76	1.29	96.46	0.69	1.12
ZAZACX		95.26	-0.12	-0.20	95.26	-0.51	-0.84
ZJDWUE	*	94.76	-0.62	-1.05	96.30	0.53	0.86
ZV2KLL		94.22	-1.16	-1.97	94.50	-1.27	-2.07

Summary Statistics

	Sample N61		Sample N62	
Grand Means	95.38	HRB	95.77	HRB
Stnd Dev Btwn Labs	0.59	HRB	0.61	HRB

Samples N61, N62 : Steel, Steel

Statistics based on 116 of 122 reporting participants

Comments on Assigned Data Flags for Test #118

33YPBD (X) - Data for sample N61 are low. Inconsistent within the determinations of sample N61.

7F6KQD (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample N62.

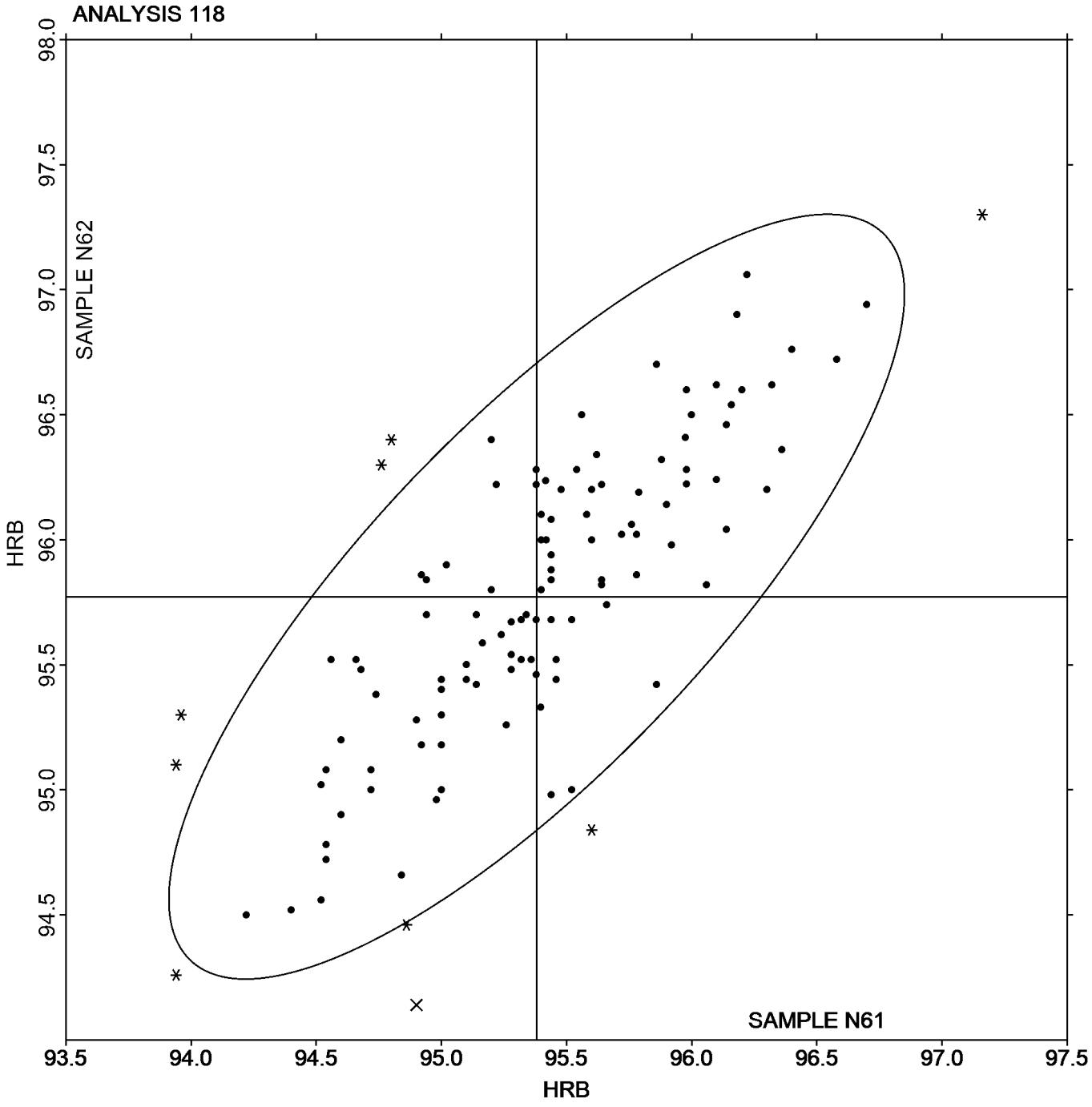
FKTNZZ (X) - Data for both samples are high. Possible Systematic Error.

HJFNF4 (X) - Data for sample N62 are extreme.

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

RQE6GM (X) - Data for sample N61 are low. Inconsistent within the determinations of sample N61.

SAMPLE N61	SAMPLE N62
95.38 HRB	95.77 HRB



		Sample N61			Sample N62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2UDW7B		96.00	-0.12	-0.20	96.31	-0.09	-0.15
2UGCKW		95.22	-0.90	-1.56	95.64	-0.76	-1.29
3AXYVK		96.47	0.35	0.62	96.87	0.47	0.79
3E8E69		96.02	-0.10	-0.17	96.60	0.20	0.34
4K4PJC		95.68	-0.44	-0.76	96.18	-0.22	-0.37
4NTTRC		96.10	-0.02	-0.03	96.30	-0.10	-0.17
4PZMHY		96.70	0.58	1.01	96.50	0.10	0.17
4VEL4B		95.80	-0.32	-0.56	95.80	-0.60	-1.02
63N4QW		95.12	-1.00	-1.74	95.74	-0.66	-1.12
6F4D3Z		96.06	-0.06	-0.10	96.62	0.22	0.37
74CF3T		97.20	1.08	1.88	97.24	0.84	1.43
7NTHBR		95.80	-0.32	-0.56	96.04	-0.36	-0.61
7XNVWR		95.78	-0.34	-0.59	96.12	-0.28	-0.47
84KKK4		96.79	0.67	1.17	97.04	0.64	1.09
9832FU		97.34	1.22	2.12	97.74	1.34	2.27
99ZWBN		97.14	1.02	1.77	97.16	0.76	1.29
A8J6VC		96.36	0.24	0.42	96.34	-0.06	-0.10
AEDM33		96.68	0.56	0.97	97.00	0.60	1.02
AGU8GD		96.28	0.16	0.28	96.82	0.42	0.71
B3LYLE	*	96.30	0.18	0.31	95.94	-0.46	-0.78
B9LZHG		95.00	-1.12	-1.95	95.67	-0.73	-1.24
BLJ77R		95.72	-0.40	-0.69	96.24	-0.16	-0.27
BV6TX4		95.90	-0.22	-0.38	96.28	-0.12	-0.20
C2U7QA		95.02	-1.10	-1.91	95.26	-1.14	-1.93
CF2ZGQ	*	97.50	1.38	2.40	97.88	1.48	2.51
CN3MVQ		95.80	-0.32	-0.56	96.22	-0.18	-0.30
CTZZX9		96.02	-0.10	-0.17	96.28	-0.12	-0.20
E4PMUU		95.36	-0.76	-1.32	95.54	-0.86	-1.46
F38YUL		95.46	-0.66	-1.15	95.84	-0.56	-0.95
F4QTWA		95.68	-0.44	-0.76	96.32	-0.08	-0.13
F8F43U		96.00	-0.12	-0.21	95.98	-0.42	-0.71
FJVC7T		95.96	-0.16	-0.28	95.96	-0.44	-0.75
FT3ZAQ		96.46	0.34	0.59	96.74	0.34	0.58
G8JD3C		96.00	-0.12	-0.21	96.46	0.06	0.10
G9VAA3		96.86	0.74	1.29	97.06	0.66	1.12
GY2PMV	*	96.48	0.36	0.63	97.42	1.02	1.73
GY7DHA		96.40	0.28	0.49	96.42	0.02	0.03
H2JA9Q		96.00	-0.12	-0.21	96.18	-0.22	-0.37
HARRK4		95.90	-0.22	-0.38	96.30	-0.10	-0.17
HM3AHR		95.70	-0.42	-0.73	95.70	-0.70	-1.19
HYMTHW		95.54	-0.58	-1.01	95.86	-0.54	-0.92
J8CV6P		96.14	0.02	0.04	96.24	-0.16	-0.27
JWN3FL		96.90	0.78	1.36	97.26	0.86	1.46
K6EMZ8		95.42	-0.70	-1.22	95.62	-0.78	-1.32
KFKUAK		96.86	0.74	1.29	96.74	0.34	0.58
KH9E4V		95.58	-0.54	-0.94	96.08	-0.32	-0.54
L6WGBM		96.10	-0.02	-0.03	96.34	-0.06	-0.10

		Sample N61			Sample N62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
LQJVE3		96.58	0.46	0.80	96.86	0.46	0.78
LTBWEY		95.58	-0.54	-0.94	96.43	0.03	0.05
M43XAY		96.48	0.36	0.63	96.78	0.38	0.65
M9T9BW		96.72	0.60	1.04	97.46	1.06	1.80
MTTDCQ		95.82	-0.30	-0.52	95.92	-0.48	-0.81
MWT9A8		95.40	-0.72	-1.25	95.20	-1.20	-2.03
NHUBQE		96.32	0.20	0.35	96.48	0.08	0.14
NPHUBH		96.40	0.28	0.49	97.20	0.80	1.36
NTEM3R		96.36	0.24	0.42	96.90	0.50	0.85
NZYMH4		95.72	-0.40	-0.69	95.88	-0.52	-0.88
P8MJEK		95.48	-0.64	-1.11	95.68	-0.72	-1.22
PLEDHK		96.90	0.78	1.36	97.22	0.82	1.39
QLQMRW		96.40	0.28	0.49	96.70	0.30	0.51
QN8P9V		95.54	-0.58	-1.01	95.56	-0.84	-1.42
R3W6BF		95.94	-0.18	-0.31	96.14	-0.26	-0.44
RDNH3E		96.72	0.60	1.04	96.68	0.28	0.48
RENPR8		96.26	0.14	0.24	96.16	-0.24	-0.41
RF2CAL		95.26	-0.86	-1.49	95.70	-0.70	-1.19
RJ2M6L		96.44	0.32	0.56	96.50	0.10	0.17
RMTEWJ		96.68	0.56	0.97	97.22	0.82	1.39
RW7NYQ		95.42	-0.70	-1.22	95.34	-1.06	-1.80
TBFF2G		95.88	-0.24	-0.42	96.28	-0.12	-0.20
TL6VTW		95.66	-0.46	-0.80	96.08	-0.32	-0.54
U6Z2CU		96.26	0.14	0.24	96.26	-0.14	-0.24
UJGKTV	X	93.54	-2.58	-4.49	94.06	-2.34	-3.97
UVKUBL		95.90	-0.22	-0.38	96.08	-0.32	-0.54
UXB63E		96.46	0.34	0.59	96.66	0.26	0.44
UZQNUV		96.00	-0.12	-0.21	96.42	0.02	0.03
V24NJ3	*	97.54	1.42	2.47	97.88	1.48	2.51
V2LP8Q		97.00	0.88	1.53	96.91	0.51	0.87
WUJWH3		95.84	-0.28	-0.49	96.10	-0.30	-0.51
WXLPXL		96.16	0.04	0.07	96.56	0.16	0.27
XJEVBW	X	94.60	-1.52	-2.64	96.00	-0.40	-0.68
YAV4WP		95.50	-0.62	-1.08	96.06	-0.34	-0.58
YL8DRU		95.28	-0.84	-1.46	96.00	-0.40	-0.68
YPW6CJ		96.55	0.43	0.75	96.98	0.58	0.98
YYRZJF		96.14	0.02	0.04	96.40	0.00	0.00
ZBFDFP		96.92	0.80	1.39	97.12	0.72	1.22
ZY39X8		95.92	-0.20	-0.35	95.88	-0.52	-0.88

Summary Statistics

	Sample N61		Sample N62	
Grand Means	96.12	HRB	96.40	HRB
Stnd Dev Btwn Labs	0.58	HRB	0.59	HRB

Samples N61, N62 : Steel, Steel

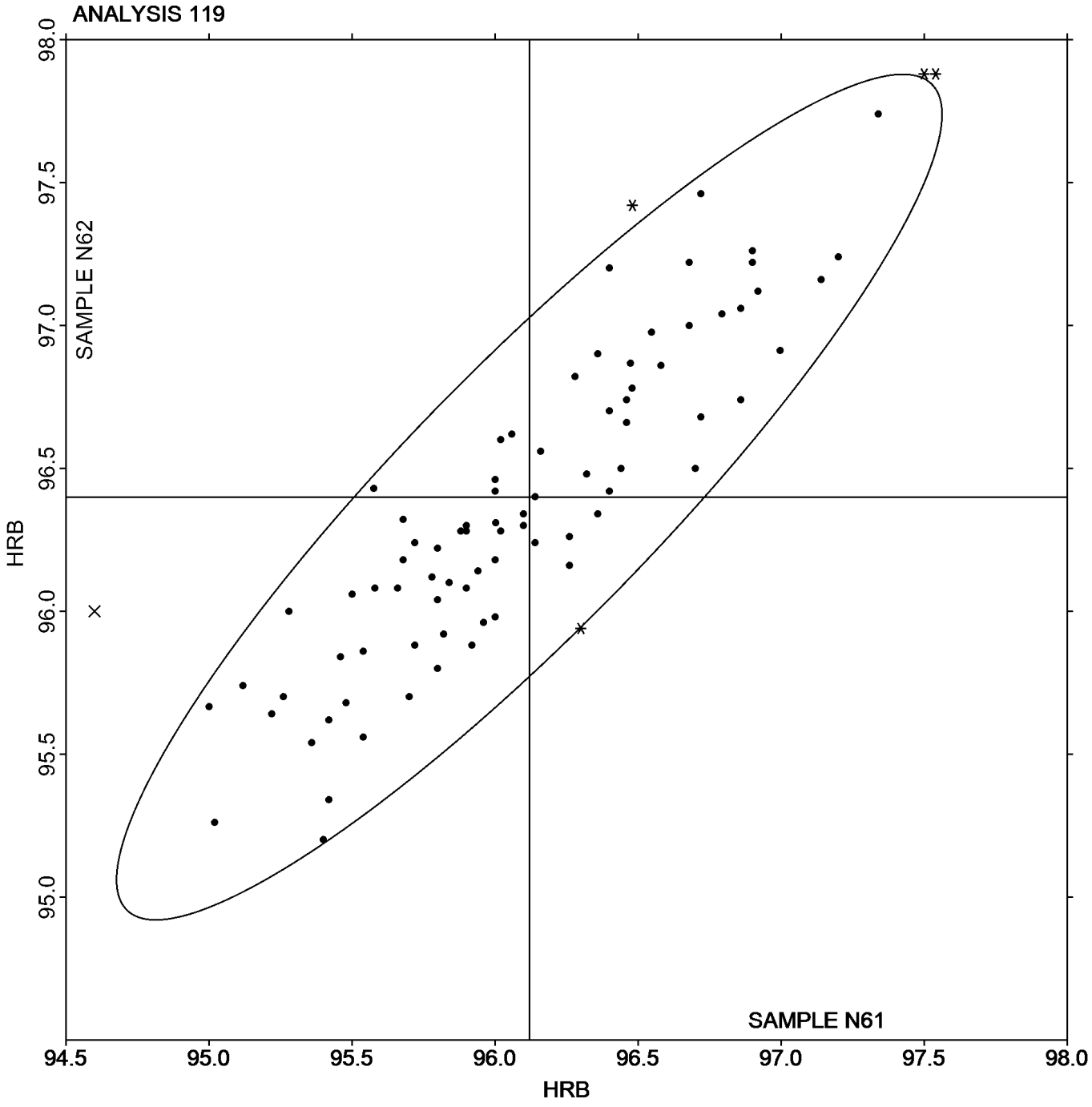
Statistics based on 84 of 86 reporting participants

Comments on Assigned Data Flags for Test #119

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

XJEVBW (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample N61.

SAMPLE N61	SAMPLE N62
96.12 HRB	96.40 HRB



		Sample S61			Sample S62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HCK6N		425.80	-2.89	-0.20	461.60	-10.61	-0.74
2HT7W9		445.40	16.71	1.17	505.20	32.99	2.29
2JP2TN		431.20	2.51	0.18	483.80	11.59	0.80
2NDJGT	*	433.44	4.75	0.33	503.02	30.81	2.14
2XE3HV		430.74	2.05	0.14	466.74	-5.47	-0.38
3E8E69		440.20	11.51	0.81	473.80	1.59	0.11
3VGY6L	X	127.66	-301.03	-21.12	122.22	-349.99	-24.30
4DZ6EP		442.20	13.51	0.95	470.40	-1.81	-0.13
4K4PJC		422.80	-5.89	-0.41	489.80	17.59	1.22
4MVL97		407.80	-20.89	-1.47	455.80	-16.41	-1.14
4NTTRC		424.20	-4.49	-0.32	474.60	2.39	0.17
4PGZL3	*	472.80	44.11	3.10	500.40	28.19	1.96
4QWMBN		439.00	10.31	0.72	482.80	10.59	0.74
6EG9U8		410.06	-18.63	-1.31	441.82	-30.39	-2.11
6F4D3Z		401.00	-27.69	-1.94	464.40	-7.81	-0.54
6HGCMF		419.04	-9.65	-0.68	445.90	-26.31	-1.83
7BRBQA		438.00	9.31	0.65	475.80	3.59	0.25
7F6KQD		407.10	-21.59	-1.51	457.66	-14.55	-1.01
7F8LXC		425.80	-2.89	-0.20	464.20	-8.01	-0.56
7G6U7V		437.06	8.37	0.59	478.32	6.11	0.42
7M92LY		439.36	10.67	0.75	489.42	17.21	1.19
7XB2E7		436.00	7.31	0.51	473.60	1.39	0.10
7XNVWR		436.70	8.01	0.56	487.08	14.87	1.03
7YJYAU		437.40	8.71	0.61	489.80	17.59	1.22
7ZRK8M		432.00	3.31	0.23	486.40	14.19	0.99
7ZT24F	M	430.40	1.71	0.12	No Data Reported		
86K3XC		419.80	-8.89	-0.62	472.80	0.59	0.04
8GGVL3		407.40	-21.29	-1.49	459.80	-12.41	-0.86
8HUH4G		420.80	-7.89	-0.55	471.60	-0.61	-0.04
9GPA8W		414.40	-14.29	-1.00	459.00	-13.21	-0.92
9Z7WTP	*	433.40	4.71	0.33	502.00	29.79	2.07
A4XCPB		438.60	9.91	0.70	457.60	-14.61	-1.01
AEJKJY		441.08	12.39	0.87	482.38	10.17	0.71
AFRTEC		444.36	15.67	1.10	473.24	1.03	0.07
AT4YMX		429.70	1.01	0.07	484.74	12.53	0.87
B3LYLE		419.20	-9.49	-0.67	456.80	-15.41	-1.07
B67FPZ		424.60	-4.09	-0.29	465.80	-6.41	-0.45
BTZWE6		404.78	-23.91	-1.68	452.00	-20.21	-1.40
C2RFQT		424.20	-4.49	-0.32	474.80	2.59	0.18
C72A86		427.60	-1.09	-0.08	482.60	10.39	0.72
D4NYUX		428.88	0.19	0.01	490.60	18.39	1.28
DGG4WA		423.40	-5.29	-0.37	458.00	-14.21	-0.99
DTAHZC		442.20	13.51	0.95	493.60	21.39	1.48
DW6UNQ		418.20	-10.49	-0.74	457.00	-15.21	-1.06
F38YUL		422.00	-6.69	-0.47	460.48	-11.73	-0.81
FBKH6R	X	129.90	-298.79	-20.97	124.88	-347.33	-24.11
GBH6YB		431.20	2.51	0.18	475.40	3.19	0.22

		Sample S61			Sample S62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
GMMH4N		419.60	-9.09	-0.64	457.00	-15.21	-1.06
GVEYDZ		426.60	-2.09	-0.15	474.80	2.59	0.18
GY3YXL		438.34	9.65	0.68	490.02	17.81	1.24
HBELPJ		408.00	-20.69	-1.45	459.80	-12.41	-0.86
HBXQ7R		447.60	18.91	1.33	478.80	6.59	0.46
HM3AHR		446.60	17.91	1.26	480.40	8.19	0.57
HX9BGC		430.20	1.51	0.11	470.40	-1.81	-0.13
HXPRAJ		438.00	9.31	0.65	476.80	4.59	0.32
JKGKXE		424.40	-4.29	-0.30	466.00	-6.21	-0.43
JKXH34		408.20	-20.49	-1.44	448.60	-23.61	-1.64
JNZ9GW		412.56	-16.13	-1.13	464.14	-8.07	-0.56
JWUG2M		411.00	-17.69	-1.24	455.20	-17.01	-1.18
K462N7		444.30	15.61	1.10	470.50	-1.71	-0.12
K72AD3		420.74	-7.95	-0.56	468.60	-3.61	-0.25
KNUJNJ		456.40	27.71	1.94	499.00	26.79	1.86
KTVDU2		441.00	12.31	0.86	487.60	15.39	1.07
KUMC9Y		428.60	-0.09	-0.01	467.60	-4.61	-0.32
KVY6U2		436.68	7.99	0.56	480.80	8.59	0.60
L2FZ9A		445.20	16.51	1.16	489.20	16.99	1.18
LTBWEY		420.60	-8.09	-0.57	450.60	-21.61	-1.50
M9WYAT		422.20	-6.49	-0.46	471.20	-1.01	-0.07
MA4ULD		440.20	11.51	0.81	494.40	22.19	1.54
MGMXTF		427.60	-1.09	-0.08	475.60	3.39	0.24
MTTDCQ		433.20	4.51	0.32	468.20	-4.01	-0.28
NZYMH4		408.40	-20.29	-1.42	465.80	-6.41	-0.45
PNB694		436.40	7.71	0.54	457.20	-15.01	-1.04
Q9WQHD		431.40	2.71	0.19	470.40	-1.81	-0.13
Q9YUB9		429.00	0.31	0.02	473.40	1.19	0.08
QA2HWT		451.40	22.71	1.59	492.40	20.19	1.40
QKVYLU		420.40	-8.29	-0.58	470.00	-2.21	-0.15
QLPLZJ	X	965.60	536.91	37.67	1,536	1,063.79	73.85
QTP4EV		404.40	-24.29	-1.70	460.20	-12.01	-0.83
QVVLDR		432.20	3.51	0.25	465.40	-6.81	-0.47
R7Y88W		417.60	-11.09	-0.78	452.00	-20.21	-1.40
R86LK6		403.80	-24.89	-1.75	459.80	-12.41	-0.86
RGWYNB		444.40	15.71	1.10	469.80	-2.41	-0.17
RQE6GM		456.00	27.31	1.92	488.20	15.99	1.11
T9PCU3		426.42	-2.27	-0.16	459.32	-12.89	-0.89
THFFBN		423.64	-5.05	-0.35	459.08	-13.13	-0.91
TLGJ3B		451.80	23.11	1.62	480.00	7.79	0.54
UENG2C	*	466.90	38.21	2.68	497.93	25.72	1.79
UMFXFV		424.22	-4.47	-0.31	465.08	-7.13	-0.50
UPX92D		397.58	-31.11	-2.18	438.76	-33.45	-2.32
UY39KD		409.60	-19.09	-1.34	460.20	-12.01	-0.83
VFQNHH		423.80	-4.89	-0.34	480.40	8.19	0.57
WK2AUL		433.40	4.71	0.33	468.00	-4.21	-0.29
WW7GJQ		414.00	-14.69	-1.03	474.20	1.99	0.14

Analysis 121

Microhardness: Knoop Indenters (500 gf)
ASTM E384

		Sample S61			Sample S62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
X7NET3		430.00	1.31	0.09	464.38	-7.83	-0.54
XMMCBJ		425.20	-3.49	-0.24	456.80	-15.41	-1.07
Y8GQXU		428.20	-0.49	-0.03	485.20	12.99	0.90
YQAEM6		435.40	6.71	0.47	477.00	4.79	0.33
Z6QPT7		421.20	-7.49	-0.53	471.20	-1.01	-0.07

Summary Statistics

	Sample S61		Sample S62	
Grand Means	428.69	HK 500 gf	472.21	HK 500 gf
Stnd Dev Btwn Labs	14.25	HK 500 gf	14.40	HK 500 gf

Samples S61, S62 : Steel, Steel

Statistics based on 95 of 99 reporting participants

Comments on Assigned Data Flags for Test #121

3VGY6L (X) - Data for both samples are very low.

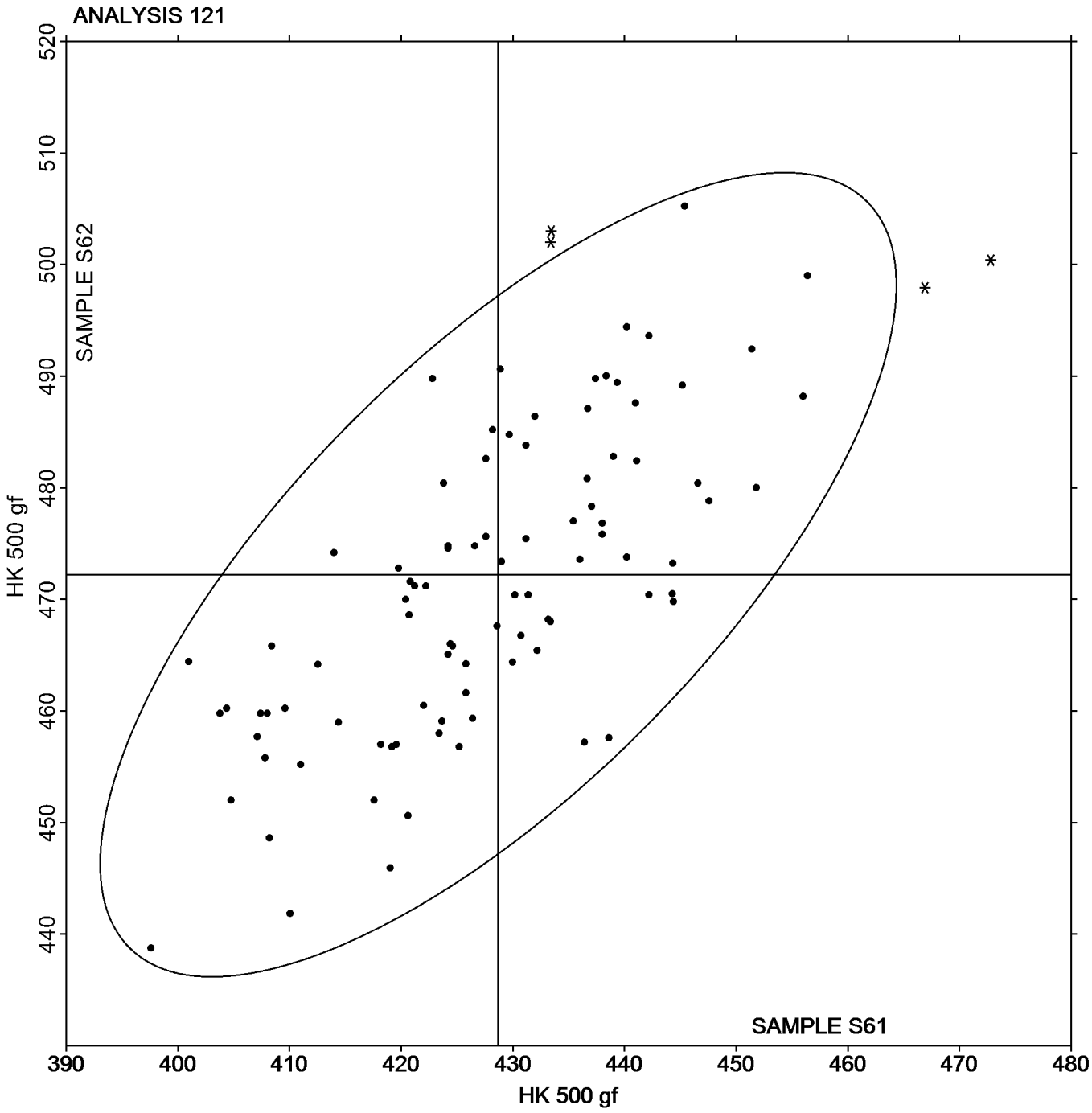
7ZT24F (M) - Participant did not submit data for sample S62.

FBKH6R (X) - Data for both samples are very low.

QLPLZJ (X) - Extreme data.

SAMPLE S61
428.69 HK 500 gf

SAMPLE S62
472.21 HK 500 gf



		Sample S61			Sample S62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HCK6N		419.00	-21.55	-1.35	480.80	-5.83	-0.33
2HT7W9	*	437.40	-3.15	-0.20	523.00	36.37	2.08
2JP2TN		449.80	9.25	0.58	491.80	5.17	0.30
2NDJGT		443.98	3.43	0.21	506.00	19.37	1.11
2XE3HV		427.24	-13.31	-0.83	475.96	-10.67	-0.61
3E8E69		443.20	2.65	0.17	491.20	4.57	0.26
4DZ6EP		444.60	4.05	0.25	472.00	-14.63	-0.84
4NTTRC		434.80	-5.75	-0.36	487.60	0.97	0.06
4PGZL3		473.00	32.45	2.03	511.00	24.37	1.39
6F4D3Z		411.40	-29.15	-1.82	468.60	-18.03	-1.03
6HGCMF		423.60	-16.95	-1.06	457.06	-29.57	-1.69
7BRBQA		433.80	-6.75	-0.42	513.20	26.57	1.52
7F8LXC		439.60	-0.95	-0.06	491.80	5.17	0.30
7M92LY		465.78	25.23	1.57	517.90	31.27	1.79
7XB2E7		440.40	-0.15	-0.01	489.20	2.57	0.15
7XNVWR		438.70	-1.85	-0.12	493.74	7.11	0.41
86K3XC		429.80	-10.75	-0.67	487.20	0.57	0.03
8HUH4G		427.60	-12.95	-0.81	477.80	-8.83	-0.50
9GPA8W		424.60	-15.95	-1.00	469.00	-17.63	-1.01
9Z7WTP		475.80	35.25	2.20	517.00	30.37	1.73
A4XCPB		413.40	-27.15	-1.69	472.00	-14.63	-0.84
AEJKJY		448.80	8.25	0.51	495.96	9.33	0.53
AFRTEC		428.22	-12.33	-0.77	461.24	-25.39	-1.45
B67FPZ		430.00	-10.55	-0.66	476.60	-10.03	-0.57
BTZWE6		422.76	-17.79	-1.11	466.44	-20.19	-1.15
C2RFQT		429.20	-11.35	-0.71	478.20	-8.43	-0.48
C72A86	*	438.60	-1.95	-0.12	524.00	37.37	2.13
D4NYUX		422.42	-18.13	-1.13	479.04	-7.59	-0.43
DGG4WA		427.80	-12.75	-0.80	479.20	-7.43	-0.42
DTAHZC		445.20	4.65	0.29	487.60	0.97	0.06
DW6UNQ		445.60	5.05	0.32	467.40	-19.23	-1.10
F38YUL		434.82	-5.73	-0.36	469.74	-16.89	-0.96
FBKH6R	X	82.08	-358.47	-22.38	78.30	-408.33	-23.31
GBH6YB		442.80	2.25	0.14	487.40	0.77	0.04
GY3YXL		451.08	10.53	0.66	498.62	11.99	0.68
HBXQ7R	X	495.20	54.65	3.41	492.40	5.77	0.33
HM3AHR		436.60	-3.95	-0.25	482.80	-3.83	-0.22
HX9BGC		449.20	8.65	0.54	500.20	13.57	0.77
HXPRAJ		443.00	2.45	0.15	485.20	-1.43	-0.08
JNZ9GW		416.14	-24.41	-1.52	469.12	-17.51	-1.00
JWUG2M		414.40	-26.15	-1.63	465.00	-21.63	-1.23
KNUJNJ		458.80	18.25	1.14	516.00	29.37	1.68
KTVDU2		433.60	-6.95	-0.43	487.00	0.37	0.02
KVY6U2		454.34	13.79	0.86	489.08	2.45	0.14
L2FZ9A		467.40	26.85	1.68	497.40	10.77	0.62
LTBWEY		449.60	9.05	0.56	462.40	-24.23	-1.38
MA4ULD		451.20	10.65	0.66	502.40	15.77	0.90

		Sample S61			Sample S62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
MGMXTF		458.60	18.05	1.13	491.80	5.17	0.30
NZYMH4	X	419.80	-20.75	-1.30	394.40	-92.23	-5.27
PNB694		427.00	-13.55	-0.85	457.40	-29.23	-1.67
Q9WQHD		470.80	30.25	1.89	505.00	18.37	1.05
QA2HWT		447.60	7.05	0.44	503.60	16.97	0.97
QLPLZJ	X	678.40	237.85	14.85	745.40	258.77	14.77
QTP4EV		453.40	12.85	0.80	516.00	29.37	1.68
QVVLDR		460.60	20.05	1.25	510.20	23.57	1.35
R86LK6		415.40	-25.15	-1.57	459.60	-27.03	-1.54
RGWYNB		465.40	24.85	1.55	499.20	12.57	0.72
T9PCU3		424.38	-16.17	-1.01	465.06	-21.57	-1.23
TLGJ3B		453.00	12.45	0.78	486.00	-0.63	-0.04
UENG2C		474.71	34.16	2.13	498.96	12.33	0.70
UY39KD		440.20	-0.35	-0.02	475.20	-11.43	-0.65
VFQNHH		436.40	-4.15	-0.26	493.20	6.57	0.38
WK2AUL		438.00	-2.55	-0.16	477.20	-9.43	-0.54
X7NET3		423.88	-16.67	-1.04	468.98	-17.65	-1.01
XMMCBJ		430.60	-9.95	-0.62	469.80	-16.83	-0.96
Y8GQXU		448.60	8.05	0.50	481.60	-5.03	-0.29
Z6QPT7		447.00	6.45	0.40	476.80	-9.83	-0.56

Summary Statistics

	Sample S61		Sample S62	
Grand Means	440.55	HK 200 gf	486.63	HK 200 gf
Stnd Dev Btwn Labs	16.02	HK 200 gf	17.52	HK 200 gf

Samples S61, S62 : Steel, Steel

Statistics based on 63 of 67 reporting participants

Comments on Assigned Data Flags for Test #122

FBKH6R (X) - Data for both samples are very low.

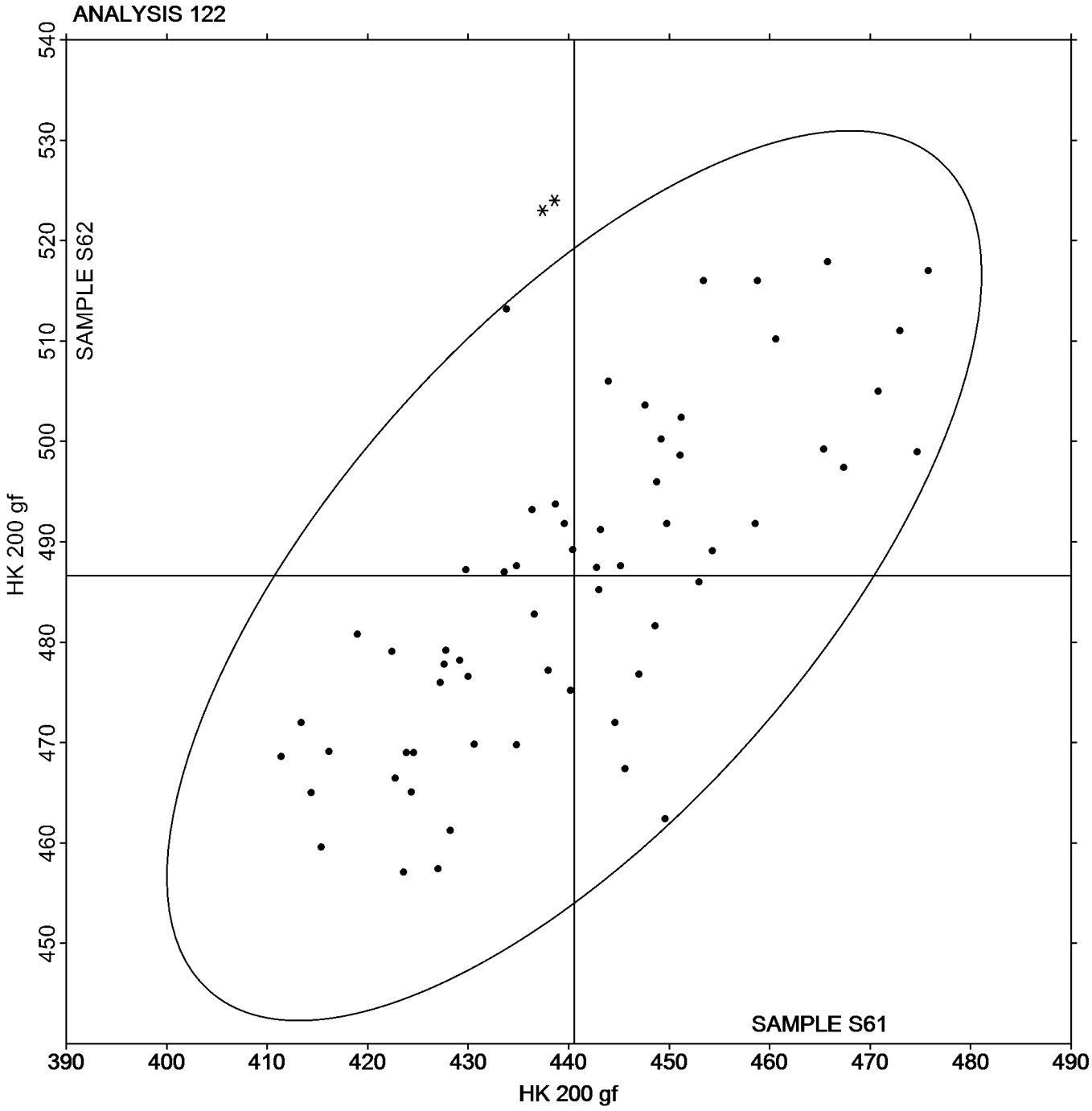
HBXQ7R (X) - Data for sample S61 are high. Inconsistent within the determinations of both samples.

NZYMH4 (X) - Data for sample S62 are low.

QLPLZJ (X) - Data for both samples are high. Inconsistent within the determinations of sample S61.

SAMPLE S61
440.55 HK 200 gf

SAMPLE S62
486.63 HK 200 gf



		Sample S61			Sample S62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HCK6N		400.40	-8.16	-0.76	451.40	-2.61	-0.26
2HT7W9		413.20	4.64	0.43	474.40	20.39	2.00
2JTP7L		402.40	-6.16	-0.58	450.60	-3.41	-0.34
2NDJGT	X	419.34	10.78	1.01	486.36	32.35	3.18
2NZEBM		403.80	-4.76	-0.44	438.80	-15.21	-1.50
2UGCKW		401.94	-6.62	-0.62	452.94	-1.07	-0.11
2XE3HV		396.62	-11.94	-1.12	455.88	1.87	0.18
3E8E69		404.20	-4.36	-0.41	445.40	-8.61	-0.85
4DZ6EP		423.00	14.44	1.35	449.60	-4.41	-0.43
4NTTRC		413.60	5.04	0.47	456.00	1.99	0.20
4PGZL3		427.40	18.84	1.76	466.80	12.79	1.26
4QWMBN		406.80	-1.76	-0.16	456.80	2.79	0.27
4UEEDX		427.20	18.64	1.74	473.80	19.79	1.95
69DZVR		425.00	16.44	1.54	469.80	15.79	1.55
6F4D3Z		391.00	-17.56	-1.64	453.40	-0.61	-0.06
6HGCMF		403.52	-5.04	-0.47	444.80	-9.21	-0.91
6MWTCC		410.74	2.18	0.20	451.20	-2.81	-0.28
73X36J		425.60	17.04	1.59	472.80	18.79	1.85
7AQXTA		399.20	-9.36	-0.87	450.40	-3.61	-0.36
7BRBQA		410.40	1.84	0.17	464.40	10.39	1.02
7F6KQD		400.10	-8.46	-0.79	446.90	-7.11	-0.70
7F8LXC		412.80	4.24	0.40	458.40	4.39	0.43
7FB9D6		420.62	12.06	1.13	473.98	19.97	1.96
7M8M27		404.00	-4.56	-0.43	450.80	-3.21	-0.32
7QLXYM		412.60	4.04	0.38	457.00	2.99	0.29
7WULRB		413.00	4.44	0.42	463.40	9.39	0.92
7XB2E7		410.60	2.04	0.19	454.40	0.39	0.04
7XNVWR		402.06	-6.50	-0.61	458.68	4.67	0.46
7ZT24F	M	No Data Reported			460.40	6.39	0.63
84KKK4		407.00	-1.56	-0.15	457.00	2.99	0.29
86K3XC		408.20	-0.36	-0.03	453.20	-0.81	-0.08
87DZ6J		418.62	10.06	0.94	464.72	10.71	1.05
8GGVL3		385.20	-23.36	-2.18	438.40	-15.61	-1.53
8HUH4G		408.60	0.04	0.00	453.80	-0.21	-0.02
8QQD42		398.40	-10.16	-0.95	440.80	-13.21	-1.30
9832FU		430.24	21.68	2.03	469.04	15.03	1.48
9GPA8W		394.20	-14.36	-1.34	449.20	-4.81	-0.47
9Z7WTP		417.00	8.44	0.79	454.40	0.39	0.04
A4XCPB		399.00	-9.56	-0.89	453.60	-0.41	-0.04
AEDM33		407.80	-0.76	-0.07	451.80	-2.21	-0.22
AEJKJY		411.40	2.84	0.27	446.54	-7.47	-0.73
AFRTEC		428.16	19.60	1.83	465.12	11.11	1.09
AGU8GD		410.92	2.37	0.22	442.41	-11.60	-1.14
AT4YMX		408.02	-0.54	-0.05	453.12	-0.89	-0.09
B3LYLE		420.20	11.64	1.09	451.00	-3.01	-0.30
B67FPZ		407.80	-0.76	-0.07	442.00	-12.01	-1.18
B8XQ3T		415.80	7.24	0.68	469.60	15.59	1.53

		Sample S61			Sample S62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
C2RFQT		404.20	-4.36	-0.41	461.80	7.79	0.77
CF2ZGQ		410.28	1.72	0.16	448.94	-5.07	-0.50
CY46BZ	X	446.08	37.52	3.51	412.12	-41.89	-4.12
D24PKD		412.60	4.04	0.38	455.76	1.75	0.17
D4NYUX		396.18	-12.38	-1.16	452.48	-1.53	-0.15
D8VX4C		397.20	-11.36	-1.06	455.00	0.99	0.10
DGG4WA		399.80	-8.76	-0.82	445.80	-8.21	-0.81
DLCTHM		401.36	-7.20	-0.67	447.80	-6.21	-0.61
DTAHZC	X	443.60	35.04	3.28	496.20	42.19	4.15
DW6UNQ		412.40	3.84	0.36	455.60	1.59	0.16
EME8AK		430.25	21.70	2.03	472.15	18.14	1.78
F8F43U		415.00	6.44	0.60	458.00	3.99	0.39
FBWJKY		404.84	-3.72	-0.35	459.82	5.80	0.57
FENTEE		394.60	-13.96	-1.30	452.20	-1.81	-0.18
FRPHZU		400.40	-8.16	-0.76	437.40	-16.61	-1.63
FRVX8T		406.60	-1.96	-0.18	463.40	9.39	0.92
FXNTQD		418.00	9.44	0.88	465.20	11.19	1.10
FZGMLM		414.40	5.84	0.55	456.40	2.39	0.23
FZGZE3		415.60	7.04	0.66	464.00	9.99	0.98
GBH6YB		406.40	-2.16	-0.20	452.20	-1.81	-0.18
GUAU73		405.00	-3.56	-0.33	450.00	-4.01	-0.39
GV877C		424.80	16.24	1.52	455.40	1.39	0.14
GY3YXL		409.38	0.82	0.08	465.24	11.23	1.10
H2PRJN		409.60	1.04	0.10	454.20	0.19	0.02
HBELPJ		396.40	-12.16	-1.14	450.60	-3.41	-0.34
HM3AHR		410.40	1.84	0.17	460.00	5.99	0.59
HX9BGC		412.20	3.64	0.34	452.80	-1.21	-0.12
HXPRAJ		399.40	-9.16	-0.86	447.20	-6.81	-0.67
JKGKXE		406.00	-2.56	-0.24	452.80	-1.21	-0.12
JWUG2M		388.60	-19.96	-1.87	434.20	-19.81	-1.95
K462N7		413.64	5.08	0.48	466.48	12.47	1.23
K72AD3		401.18	-7.38	-0.69	450.48	-3.53	-0.35
KF6QFT		415.24	6.68	0.62	454.56	0.55	0.05
KH9E4V		399.60	-8.96	-0.84	460.80	6.79	0.67
KNUJNJ	X	424.40	15.84	1.48	495.60	41.59	4.09
KTVDU2		418.80	10.24	0.96	474.60	20.59	2.02
KVY6U2		407.74	-0.82	-0.08	465.00	10.99	1.08
L2FZ9A		424.80	16.24	1.52	469.20	15.19	1.49
L4TF6A	*	434.00	25.44	2.38	477.40	23.39	2.30
LDNBD7		396.52	-12.04	-1.13	439.84	-14.17	-1.39
LTBWEY		392.20	-16.36	-1.53	432.40	-21.61	-2.12
M2EHP7		400.02	-8.54	-0.80	456.50	2.49	0.24
MA4ULD		423.60	15.04	1.41	471.40	17.39	1.71
MAKF49		422.08	13.52	1.26	463.54	9.53	0.94
MCV62R		401.20	-7.36	-0.69	453.00	-1.01	-0.10
MGMXTF		400.80	-7.76	-0.73	450.80	-3.21	-0.32
MRGPNK		402.40	-6.16	-0.58	448.26	-5.75	-0.57

		Sample S61			Sample S62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
MTTDCQ		422.40	13.84	1.29	458.60	4.59	0.45
N6QTFE		414.20	5.64	0.53	456.00	1.99	0.20
NDFU3H		423.50	14.94	1.40	467.88	13.87	1.36
NN67T3		415.12	6.56	0.61	450.98	-3.03	-0.30
NZA9TK		407.18	-1.38	-0.13	442.88	-11.13	-1.09
NZYMH4		402.00	-6.56	-0.61	446.60	-7.41	-0.73
PNB694		401.40	-7.16	-0.67	433.80	-20.21	-1.99
PXQQTT		394.80	-13.76	-1.29	438.00	-16.01	-1.57
Q9WQHD		408.00	-0.56	-0.05	446.60	-7.41	-0.73
Q9YUB9		413.80	5.24	0.49	459.60	5.59	0.55
QA2HWT	*	438.00	29.44	2.75	474.40	20.39	2.00
QLPLZJ		407.40	-1.16	-0.11	446.80	-7.21	-0.71
QMK8TB		406.96	-1.60	-0.15	456.32	2.31	0.23
QRU2AM		403.90	-4.66	-0.44	446.14	-7.87	-0.77
QVVLDR		401.00	-7.56	-0.71	456.40	2.39	0.23
R86LK6	X	342.80	-65.76	-6.15	398.20	-55.81	-5.49
RDNH3E		399.62	-8.94	-0.84	444.34	-9.67	-0.95
RF2CAL		403.00	-5.56	-0.52	452.80	-1.21	-0.12
RGWYNB		404.80	-3.76	-0.35	452.40	-1.61	-0.16
RMTEWJ		393.00	-15.56	-1.45	443.80	-10.21	-1.00
RW7NYQ		417.60	9.04	0.85	443.20	-10.81	-1.06
T9PCU3		395.96	-12.60	-1.18	441.46	-12.55	-1.23
TGPGWP		402.60	-5.96	-0.56	451.00	-3.01	-0.30
THFFBN		411.10	2.54	0.24	439.58	-14.43	-1.42
TL6VTW		411.00	2.44	0.23	449.00	-5.01	-0.49
TLGJ3B		429.40	20.84	1.95	461.40	7.39	0.73
U82H7K		418.60	10.04	0.94	451.00	-3.01	-0.30
UBAP6H		398.66	-9.90	-0.93	444.94	-9.07	-0.89
UENG2C		426.31	17.75	1.66	475.12	21.11	2.08
UJGKTV		414.48	5.92	0.55	453.52	-0.49	-0.05
UMFXFV		398.40	-10.16	-0.95	446.26	-7.75	-0.76
UY39KD		392.00	-16.56	-1.55	445.40	-8.61	-0.85
V24NJ3		398.80	-9.76	-0.91	438.80	-15.21	-1.50
V3GDLF		392.40	-16.16	-1.51	444.20	-9.81	-0.96
V4MR29		415.82	7.26	0.68	469.22	15.21	1.50
VDKEER		413.00	4.44	0.42	467.60	13.59	1.34
VFQNHH	*	393.60	-14.96	-1.40	459.40	5.39	0.53
WK2AUL		425.40	16.84	1.57	454.60	0.59	0.06
X7NET3		407.18	-1.38	-0.13	450.24	-3.77	-0.37
XJETLR	*	382.00	-26.56	-2.48	426.80	-27.21	-2.68
XMMCBJ		409.80	1.24	0.12	446.40	-7.61	-0.75
Y8GQXU		397.40	-11.16	-1.04	438.40	-15.61	-1.53
YNGDW2		416.28	7.72	0.72	454.14	0.13	0.01
YXJN3D		400.60	-7.96	-0.74	445.00	-9.01	-0.89
YZGBB9		399.28	-9.28	-0.87	461.18	7.17	0.70
Z6QPT7		413.20	4.64	0.43	452.60	-1.41	-0.14
ZJDWUE		420.20	11.64	1.09	447.60	-6.41	-0.63

Summary Statistics

	Sample S61		Sample S62	
Grand Means	408.56	HV 500 gf	454.01	HV 500 gf
Stnd Dev Btwn Labs	10.70	HV 500 gf	10.17	HV 500 gf

Samples S61, S62 : Steel, Steel

Statistics based on 135 of 141 reporting participants

Comments on Assigned Data Flags for Test #123

2NDJGT (X) - Data for sample S62 are high.

7ZT24F (M) - Participant did not submit data for sample S61.

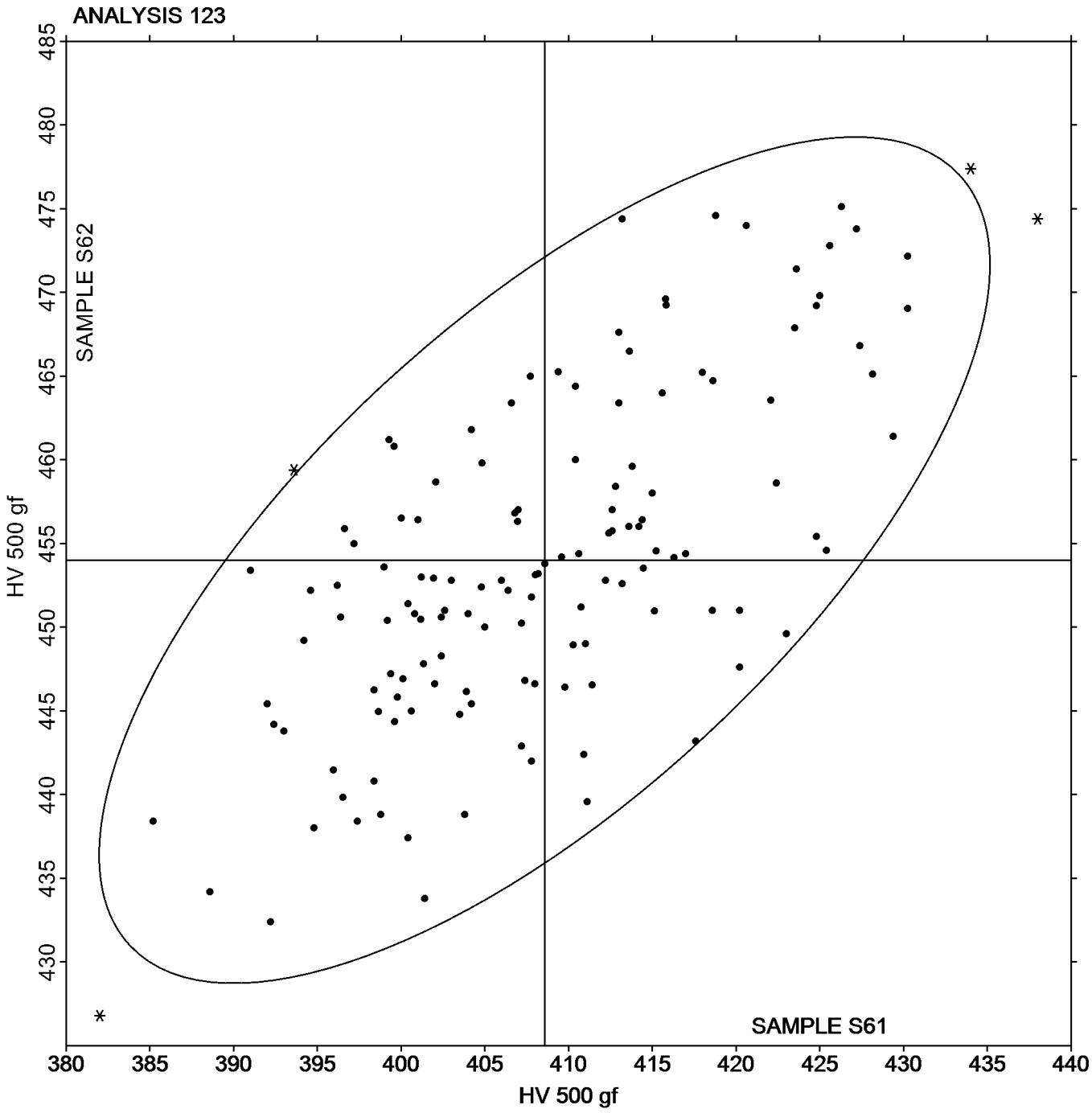
CY46BZ (X) - Data for sample S61 are high and data for sample S62 are low.

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

KNUJNJ (X) - Data for sample S62 are high.

R86LK6 (X) - Data for both samples are low. Inconsistent within the determinations of both samples.

SAMPLE S61	SAMPLE S62
408.56 HV 500 gf	454.01 HV 500 gf



		Sample D61			Sample D62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2XE3HV		284.00	9.94	1.21	297.60	1.92	0.18
3AXYVK		263.60	-10.46	-1.28	284.00	-11.68	-1.08
3Y4QFG		279.02	4.96	0.60	295.12	-0.56	-0.05
4N6Y4A		270.80	-3.26	-0.40	294.80	-0.88	-0.08
4NTTRC		277.00	2.94	0.36	300.40	4.72	0.44
4PZMHY		286.80	12.74	1.55	321.00	25.32	2.35
69PDXP		276.80	2.74	0.33	297.40	1.72	0.16
73FE4B		272.80	-1.26	-0.15	297.00	1.32	0.12
74CF3T		265.00	-9.06	-1.11	284.20	-11.48	-1.06
7F8LXC		271.70	-2.36	-0.29	293.96	-1.72	-0.16
7WULRB		284.20	10.14	1.24	311.00	15.32	1.42
7XB2E7		279.80	5.74	0.70	293.00	-2.68	-0.25
8FZQZX		276.60	2.54	0.31	309.80	14.12	1.31
8GGVL3	X	263.40	-10.66	-1.30	302.00	6.32	0.59
8GH89T		286.00	11.94	1.46	309.20	13.52	1.25
8NAFDW		269.31	-4.76	-0.58	289.34	-6.33	-0.59
9TKTVV		272.80	-1.26	-0.15	299.00	3.32	0.31
A4XCPB		285.00	10.94	1.33	298.40	2.72	0.25
AEJKJY		278.00	3.94	0.48	300.80	5.12	0.48
AMG8E6		272.00	-2.06	-0.25	297.00	1.32	0.12
AQXXMF		266.60	-7.46	-0.91	289.00	-6.68	-0.62
AT4YMX		267.02	-7.04	-0.86	288.34	-7.34	-0.68
B3LYLE		268.60	-5.46	-0.67	285.60	-10.08	-0.93
B67FPZ		262.00	-12.06	-1.47	287.80	-7.88	-0.73
BLWEZ9		290.40	16.34	1.99	321.00	25.32	2.35
BUQJQN		285.40	11.34	1.38	318.00	22.32	2.07
CN3MVQ		286.80	12.74	1.55	321.00	25.32	2.35
DKPYC8		271.60	-2.46	-0.30	293.40	-2.28	-0.21
DP6E8J		269.00	-5.06	-0.62	286.60	-9.08	-0.84
E3QDBQ		267.80	-6.26	-0.76	287.80	-7.88	-0.73
FWHJ29		282.20	8.14	0.99	294.60	-1.08	-0.10
GBH6YB		268.20	-5.86	-0.71	292.00	-3.68	-0.34
GDWYHN		262.96	-11.10	-1.35	288.76	-6.92	-0.64
GMMH4N		278.20	4.14	0.50	300.80	5.12	0.48
HARRK4		285.00	10.94	1.33	304.80	9.12	0.85
HDF92G		266.20	-7.86	-0.96	284.60	-11.08	-1.03
HGWH9U	*	251.60	-22.46	-2.74	263.20	-32.48	-3.01
HWF2AB		283.00	8.94	1.09	298.40	2.72	0.25
HX9BGC		281.00	6.94	0.85	302.00	6.32	0.59
HXPRAJ		271.00	-3.06	-0.37	296.00	0.32	0.03
HYMTHW		279.00	4.94	0.60	293.60	-2.08	-0.19
HYTWG8		269.00	-5.06	-0.62	286.00	-9.68	-0.90
JF3QWT		269.00	-5.06	-0.62	289.80	-5.88	-0.55
K6GLKM		284.60	10.54	1.28	312.60	16.92	1.57
KFP8VV		269.00	-5.06	-0.62	278.60	-17.08	-1.58
KH9E4V		277.60	3.54	0.43	297.60	1.92	0.18
KTVDU2	X	363.00	88.94	10.84	286.60	-9.08	-0.84

		Sample D61			Sample D62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
KUMC9Y		288.20	14.14	1.72	311.00	15.32	1.42
L2FZ9A		276.80	2.74	0.33	291.00	-4.68	-0.43
LA664B		276.00	1.94	0.24	291.00	-4.68	-0.43
LDNBD7		273.00	-1.06	-0.13	293.00	-2.68	-0.25
M43XAY		268.40	-5.66	-0.69	285.60	-10.08	-0.93
MAKF49		266.86	-7.20	-0.88	291.46	-4.22	-0.39
MRGPNK		277.60	3.54	0.43	299.60	3.92	0.36
MTTDCQ		266.80	-7.26	-0.89	285.80	-9.88	-0.92
NNLMLB		262.00	-12.06	-1.47	285.00	-10.68	-0.99
NPHUBH		285.00	10.94	1.33	298.40	2.72	0.25
P2YWQ7		265.46	-8.60	-1.05	289.10	-6.58	-0.61
PD2FML		276.80	2.74	0.33	294.20	-1.48	-0.14
PKRTUT		271.06	-3.00	-0.37	292.10	-3.58	-0.33
QDTBNH		274.60	0.54	0.07	292.60	-3.08	-0.29
QDWGYV		273.12	-0.94	-0.11	294.58	-1.10	-0.10
QMK8TB		286.34	12.28	1.50	317.22	21.54	2.00
R2AH7L		271.20	-2.86	-0.35	295.20	-0.48	-0.04
R86LK6		257.60	-16.46	-2.01	282.40	-13.28	-1.23
RDFPWQ		269.00	-5.06	-0.62	285.00	-10.68	-0.99
RJ2M6L		271.40	-2.66	-0.32	295.80	0.12	0.01
RK2H8Q		278.00	3.94	0.48	294.70	-0.98	-0.09
RXFQEA		266.38	-7.68	-0.94	289.74	-5.94	-0.55
T6Q2Y3		283.60	9.54	1.16	313.40	17.72	1.64
TBFF2G		260.26	-13.80	-1.68	289.84	-5.84	-0.54
TLGJ3B		270.80	-3.26	-0.40	292.60	-3.08	-0.29
UC6DJ8	*	285.00	10.94	1.33	321.00	25.32	2.35
UG3PLY		275.80	1.74	0.21	306.40	10.72	0.99
URDBHC		262.00	-12.06	-1.47	282.60	-13.08	-1.21
UVKUBL		276.80	2.74	0.33	286.80	-8.88	-0.82
V24NJ3		269.40	-4.66	-0.57	290.00	-5.68	-0.53
VBCD3T		270.60	-3.46	-0.42	286.80	-8.88	-0.82
VDKEER		275.20	1.14	0.14	293.60	-2.08	-0.19
VKHV2Q		281.60	7.54	0.92	305.60	9.92	0.92
X37E8V		285.00	10.94	1.33	302.00	6.32	0.59
XMMCBJ		261.20	-12.86	-1.57	288.80	-6.88	-0.64
Y33GRD		287.00	12.94	1.58	316.00	20.32	1.89
Y8GQXU		270.20	-3.86	-0.47	286.20	-9.48	-0.88
YDRLZJ		267.60	-6.46	-0.79	291.40	-4.28	-0.40
YL8DRU		273.60	-0.46	-0.06	294.40	-1.28	-0.12
ZJDWUE	X	289.40	15.34	1.87	265.60	-30.08	-2.79

Summary Statistics

	Sample D61		Sample D62	
Grand Means	274.06	HBW	295.68	HBW
Stnd Dev Btwn Labs	8.20	HBW	10.78	HBW

Samples D61, D62 : Steel, Steel

Statistics based on 84 of 87 reporting participants

Samples D61, D62 are hardness test blocks made from steel. The blocks are heat treated to hardness levels specified by CTS.

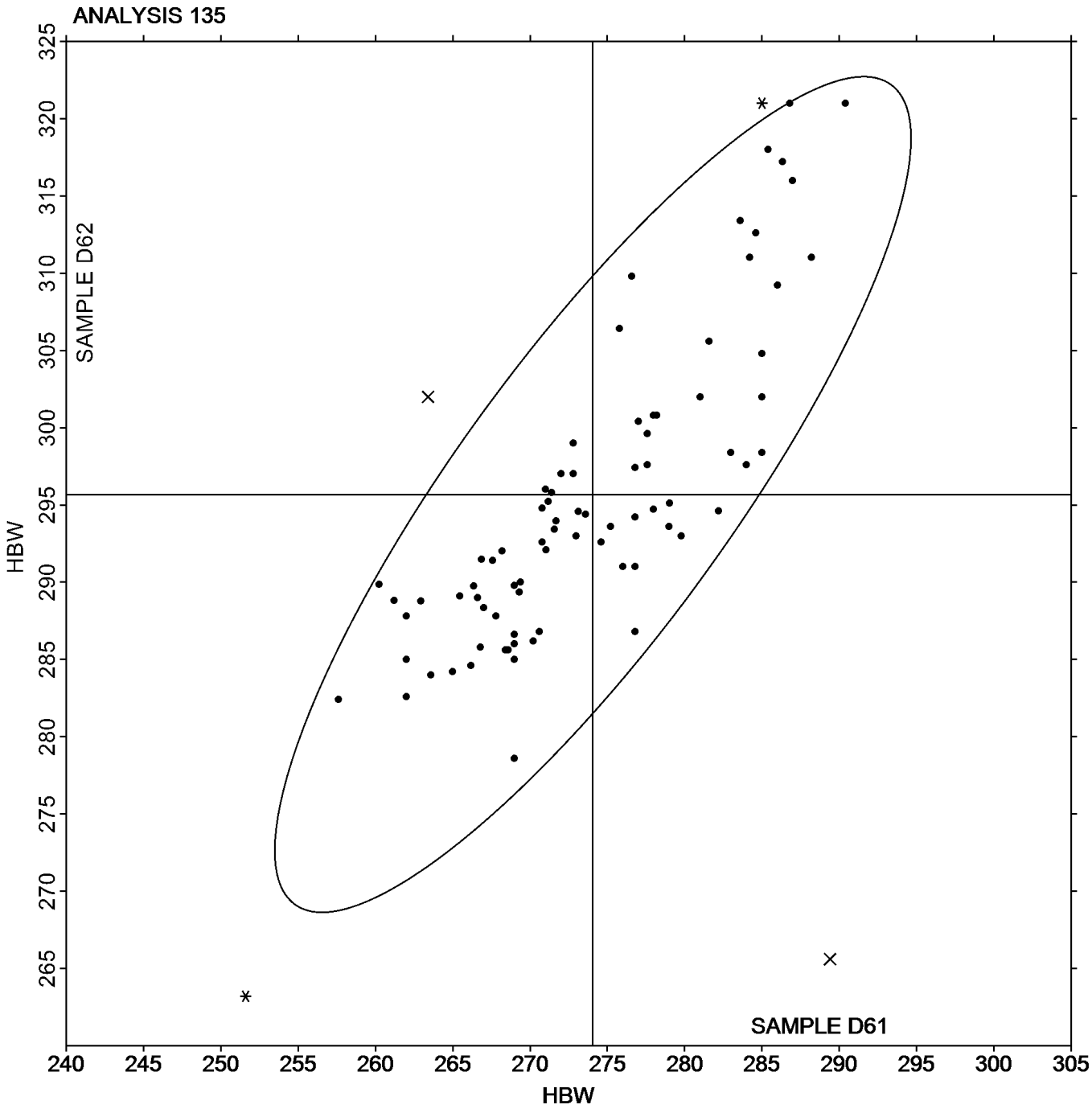
Comments on Assigned Data Flags for Test #135

8GGVL3 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample D61.

KTVDU2 (X) - Data for sample D61 are high.

ZJDWUE (X) - Data for sample D62 are low. Inconsistent within the determinations of sample D61.

SAMPLE D61	SAMPLE D62
274.06 HBW	295.68 HBW



		Sample P61			Sample P62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HCK6N		139.80	-1.45	-1.11	138.80	-1.39	-0.75
2XE3HV		140.62	-0.63	-0.48	138.57	-1.62	-0.87
3AXYVK		143.65	2.39	1.83	142.88	2.69	1.45
3Y4QFG		140.70	-0.55	-0.42	137.63	-2.56	-1.38
42CGLH		141.00	-0.25	-0.19	140.00	-0.19	-0.10
4NTTRC		140.40	-0.85	-0.66	137.79	-2.40	-1.30
4WAAHZ		141.60	0.35	0.27	142.40	2.21	1.19
6PVCTQ		142.70	1.45	1.11	140.20	0.01	0.01
6WEFZT		143.10	1.85	1.42	141.20	1.01	0.55
73FE4B		142.10	0.85	0.65	142.30	2.11	1.14
73X36J	*	138.00	-3.25	-2.49	140.00	-0.19	-0.10
7AQXTA		140.80	-0.45	-0.35	136.10	-4.09	-2.21
7LHJY6		142.50	1.25	0.96	139.20	-0.99	-0.53
7M4ZLD		142.69	1.43	1.10	141.79	1.60	0.87
7XNVWR		140.00	-1.25	-0.96	141.00	0.81	0.44
8FD42U	X	138.82	-2.44	-1.87	133.99	-6.20	-3.35
8GGVL3		141.99	0.74	0.57	139.82	-0.37	-0.20
8GH89T		139.50	-1.75	-1.34	139.40	-0.79	-0.43
8UKV38	*	144.98	3.73	2.86	143.41	3.22	1.74
8Z6ADR		140.98	-0.27	-0.21	143.19	3.00	1.62
8Z8TK4		142.10	0.85	0.65	141.00	0.81	0.44
99ZWBN		141.60	0.35	0.27	139.49	-0.70	-0.38
9Z7WTP		139.30	-1.95	-1.50	139.30	-0.89	-0.48
A4XCPB		140.20	-1.05	-0.81	140.30	0.11	0.06
AEJKJY		141.60	0.35	0.27	140.50	0.31	0.17
AMWB9W		141.75	0.49	0.38	139.02	-1.17	-0.63
AQXXMF		140.90	-0.35	-0.27	139.76	-0.43	-0.23
CHVQW7		141.99	0.74	0.57	141.41	1.23	0.66
CN3MVQ		142.19	0.94	0.72	142.30	2.11	1.14
D6LAMF		140.67	-0.58	-0.45	139.03	-1.16	-0.62
DP6E8J	X	135.00	-6.25	-4.79	137.60	-2.59	-1.40
DYADTD		140.42	-0.83	-0.64	138.92	-1.27	-0.68
EUMATT		140.60	-0.65	-0.50	141.40	1.21	0.65
FJVC7T		141.87	0.62	0.47	142.96	2.78	1.50
FXFU2H		140.50	-0.75	-0.58	142.90	2.71	1.46
FZGZE3		142.00	0.75	0.57	141.00	0.81	0.44
GLVJQC		141.22	-0.03	-0.02	139.19	-1.00	-0.54
GMMH4N		142.64	1.39	1.06	141.64	1.45	0.78
GTVRJX		140.66	-0.59	-0.45	140.15	-0.04	-0.02
GV877C		141.10	-0.15	-0.12	138.60	-1.59	-0.86
GY2PMV		140.25	-1.00	-0.77	139.21	-0.98	-0.53
GY3YXL		141.33	0.07	0.06	140.86	0.67	0.36
HARRK4		141.80	0.55	0.42	139.17	-1.02	-0.55
HJFNF4		141.50	0.25	0.19	141.20	1.01	0.55
HQLUBE		143.90	2.65	2.03	141.50	1.31	0.71
HYMTHW		140.20	-1.05	-0.81	141.20	1.01	0.55
HYTWG8		141.60	0.35	0.27	139.30	-0.89	-0.48

		Sample P61			Sample P62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
JF3QWT		141.00	-0.25	-0.19	139.00	-1.19	-0.64
JGDY22		138.95	-2.30	-1.77	137.50	-2.69	-1.45
JWN3FL		141.41	0.16	0.12	142.14	1.95	1.05
K6EMZ8		139.00	-2.25	-1.73	137.00	-3.19	-1.72
KFKUAK		143.50	2.25	1.72	139.20	-0.99	-0.53
KFP8VV	X	126.74	-14.51	-11.13	133.19	-7.00	-3.78
KTVDU2		142.74	1.49	1.14	139.73	-0.46	-0.25
KUMC9Y		141.50	0.25	0.19	137.50	-2.69	-1.45
KZH846		139.90	-1.35	-1.04	137.40	-2.79	-1.51
L2FZ9A		140.00	-1.25	-0.96	141.00	0.81	0.44
L97DJN	*	139.85	-1.40	-1.07	143.76	3.58	1.93
LA664B		141.47	0.21	0.16	142.41	2.22	1.20
LA7WKB		139.97	-1.28	-0.98	139.82	-0.37	-0.20
LKFV97		142.08	0.82	0.63	138.59	-1.60	-0.86
LL6XEN		142.64	1.39	1.06	140.62	0.43	0.23
LQB4YD		142.14	0.89	0.68	141.41	1.23	0.66
MHFLXA		143.10	1.85	1.42	141.00	0.81	0.44
MNLPVH		142.25	1.00	0.77	140.92	0.73	0.39
MRGPNK	*	138.80	-2.45	-1.88	135.61	-4.58	-2.47
MX2UCE		140.33	-0.93	-0.71	137.66	-2.53	-1.37
P2YWQ7		139.80	-1.45	-1.11	140.90	0.71	0.38
P7LMHG		140.30	-0.95	-0.73	139.30	-0.89	-0.48
PPRTLC		142.51	1.26	0.97	139.81	-0.38	-0.21
PUERKY		142.00	0.75	0.57	140.00	-0.19	-0.10
Q639J7		140.00	-1.25	-0.96	141.00	0.81	0.44
QDEKEH	X	140.75	-0.50	-0.38	146.77	6.58	3.55
QQTDLG		142.00	0.75	0.57	141.00	0.81	0.44
R86LK6		139.85	-1.41	-1.08	137.48	-2.70	-1.46
RJ2M6L	*	138.90	-2.35	-1.80	135.00	-5.19	-2.80
RVC34D		141.12	-0.13	-0.10	142.12	1.94	1.05
T6Q2Y3		143.21	1.96	1.50	140.37	0.18	0.10
TBFF2G	X	135.67	-5.59	-4.28	132.43	-7.76	-4.19
TLGJ3B		141.90	0.65	0.50	138.20	-1.99	-1.07
U69UJH	*	145.04	3.79	2.90	141.56	1.37	0.74
U9BQBX		140.70	-0.55	-0.42	139.30	-0.89	-0.48
UAH2X2		140.80	-0.45	-0.35	143.10	2.91	1.57
UBEH3B		141.79	0.54	0.41	140.17	-0.02	-0.01
UC6DJ8		141.00	-0.25	-0.19	140.00	-0.19	-0.10
UG3PLY		140.40	-0.85	-0.65	137.80	-2.39	-1.29
UR3F6L		141.57	0.32	0.24	141.01	0.82	0.44
UVKUBL		140.20	-1.05	-0.81	140.80	0.61	0.33
UYVGG6		141.10	-0.15	-0.12	139.50	-0.69	-0.37
UZUVR4		141.56	0.31	0.23	142.86	2.68	1.45
V24NJ3		140.85	-0.40	-0.31	140.99	0.81	0.43
VKHV2Q		141.41	0.16	0.12	142.43	2.24	1.21
VYAJKH		141.75	0.49	0.38	143.43	3.24	1.75
XJEVBW	X	136.00	-5.25	-4.03	138.00	-2.19	-1.18

WebCode	Data Flag	Sample P61 Lab Mean	Sample P61 Diff. from Grand Mean	Sample P61 CPV	Sample P62 Lab Mean	Sample P62 Diff. from Grand Mean	Sample P62 CPV
Y8GQXU		140.20	-1.05	-0.81	137.20	-2.99	-1.61
ZJDWUE		139.80	-1.45	-1.11	140.00	-0.19	-0.10
ZM8ERK		142.59	1.33	1.02	142.47	2.28	1.23
ZV2KLL	X	147.20	5.95	4.56	138.25	-1.94	-1.05

Summary Statistics

	Sample P61		Sample P62	
Grand Means	141.25	ksi	140.19	ksi
Stnd Dev Btwn Labs	1.30	ksi	1.85	ksi

Samples P61, P62 : AISI 4340 (E), AISI 4340 (F)

Statistics based on 91 of 98 reporting participants

Comments on Assigned Data Flags for Test #140

8FD42U (X) - Data for sample P62 are low.

DP6E8J (X) - Data for sample P61 are low.

KFP8VV (X) - Data for both samples are low.

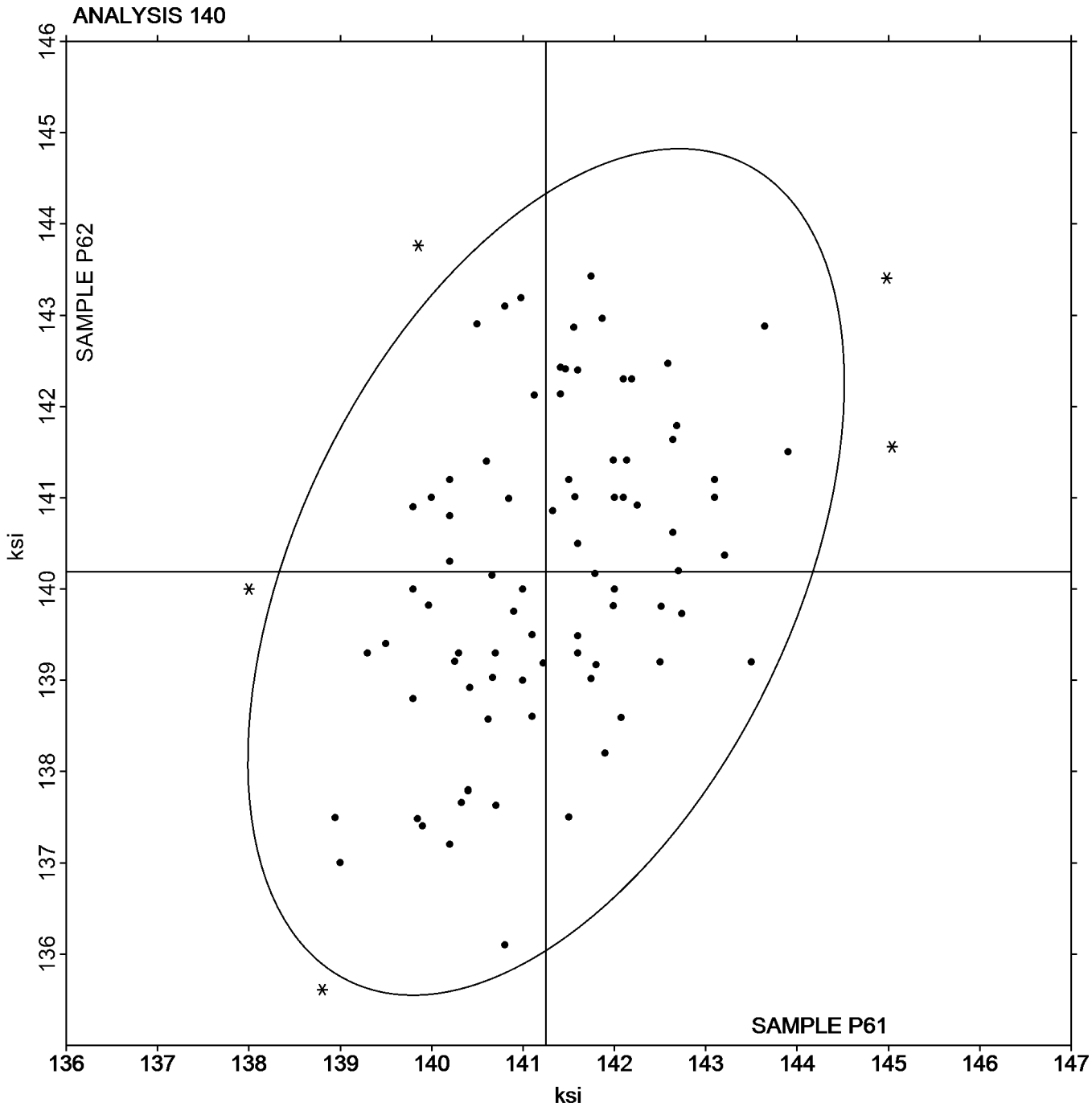
QDEKEH (X) - Data for sample P62 are high.

TBFF2G (X) - Data for both samples are low.

XJEVBW (X) - Data for sample P61 are low.

ZV2KLL (X) - Data for sample P61 are high.

SAMPLE P61	SAMPLE P62
141.25 ksi	140.19 ksi



		Sample P61			Sample P62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HCK6N		112.50	-0.87	-0.44	111.30	-0.48	-0.18
2XE3HV		112.49	-0.88	-0.44	110.45	-1.33	-0.50
3AXYVK		115.24	1.87	0.94	114.99	3.21	1.20
3Y4QFG		112.97	-0.40	-0.20	109.65	-2.13	-0.80
42CGLH		112.00	-1.37	-0.69	110.00	-1.78	-0.66
4NTTRC		110.81	-2.56	-1.29	106.17	-5.61	-2.10
4WAAHZ		113.50	0.13	0.07	111.60	-0.18	-0.07
6PVCTQ		115.50	2.13	1.07	111.90	0.12	0.05
6WEFZT		115.80	2.43	1.23	113.00	1.22	0.46
73FE4B		114.10	0.73	0.37	113.80	2.02	0.76
73X36J		109.00	-4.37	-2.21	110.00	-1.78	-0.66
7AQXTA		111.60	-1.77	-0.89	106.40	-5.38	-2.01
7LHJY6		114.90	1.53	0.77	111.00	-0.78	-0.29
7M4ZLD		114.68	1.31	0.66	113.22	1.44	0.54
7XNVWR		113.00	-0.37	-0.19	113.00	1.22	0.46
8FD42U		110.77	-2.60	-1.31	105.75	-6.03	-2.25
8GGVL3		116.03	2.66	1.34	115.89	4.11	1.54
8GH89T		114.20	0.83	0.42	112.60	0.82	0.31
8UKV38		116.07	2.70	1.36	114.38	2.60	0.97
8Z6ADR		115.80	2.43	1.23	116.85	5.07	1.90
8Z8TK4		113.60	0.23	0.12	111.90	0.12	0.05
99ZWBN		112.53	-0.84	-0.42	109.35	-2.43	-0.91
9Z7WTP		111.40	-1.97	-0.99	111.70	-0.08	-0.03
A4XCPB		112.00	-1.37	-0.69	110.70	-1.08	-0.40
AEJKJY		112.90	-0.47	-0.24	111.20	-0.58	-0.22
AMWB9W		113.88	0.51	0.26	111.46	-0.31	-0.12
CHVQW7		114.58	1.21	0.61	113.86	2.08	0.78
CN3MVQ		113.57	0.20	0.10	113.21	1.43	0.54
D6LAMF	X	106.80	-6.57	-3.32	109.57	-2.20	-0.82
DP6E8J	X	98.30	-15.07	-7.61	99.90	-11.88	-4.44
DYADTD		112.59	-0.78	-0.39	111.29	-0.49	-0.18
EUMATT		113.50	0.13	0.07	114.00	2.22	0.83
FJVC7T		113.33	-0.04	-0.02	114.19	2.42	0.90
FXFU2H		112.40	-0.97	-0.49	115.50	3.72	1.39
FZGZE3		113.10	-0.27	-0.14	111.40	-0.38	-0.14
GLVJQC		112.03	-1.34	-0.68	109.38	-2.39	-0.90
GMMH4N		117.41	4.03	2.04	114.14	2.37	0.89
GTVRJX		112.23	-1.14	-0.58	111.59	-0.19	-0.07
GV877C		117.70	4.33	2.18	113.00	1.22	0.46
GY2PMV	X	128.23	14.86	7.50	127.45	15.67	5.86
GY3YXL	X	131.63	18.26	9.22	131.20	19.43	7.27
HARRK4		114.08	0.71	0.36	110.89	-0.89	-0.33
HJFNF4		113.70	0.33	0.17	112.40	0.62	0.23
HQLUBE		116.80	3.43	1.73	113.40	1.62	0.61
HYMTHW		113.00	-0.37	-0.19	112.40	0.62	0.23
HYTWG8		114.00	0.63	0.32	111.20	-0.58	-0.22
JF3QWT		114.60	1.23	0.62	112.70	0.92	0.35

		Sample P61			Sample P62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
JGDY22		111.24	-2.13	-1.07	109.36	-2.42	-0.90
JWN3FL	*	116.76	3.39	1.71	118.93	7.16	2.68
K6EMZ8		110.00	-3.37	-1.70	108.00	-3.78	-1.41
KFKUAK	X	110.80	-2.57	-1.30	116.20	4.42	1.66
KFP8VV	X	98.13	-15.24	-7.69	103.25	-8.53	-3.19
KTVDU2		114.36	0.99	0.50	110.93	-0.85	-0.32
KUMC9Y		112.80	-0.57	-0.29	109.60	-2.18	-0.81
KZH846		114.00	0.63	0.32	111.80	0.02	0.01
L2FZ9A		111.00	-2.37	-1.20	113.00	1.22	0.46
L97DJN		112.40	-0.97	-0.49	115.84	4.07	1.52
LA664B		113.59	0.21	0.11	114.20	2.43	0.91
LKFV97		115.20	1.83	0.92	111.01	-0.77	-0.29
LL6XEN		113.87	0.50	0.25	113.03	1.25	0.47
LQB4YD	X	121.11	7.74	3.90	117.48	5.71	2.13
MHFLXA		115.70	2.33	1.18	112.90	1.12	0.42
MNLPVH		113.88	0.51	0.26	111.24	-0.53	-0.20
MRGPNK		111.53	-1.84	-0.93	107.62	-4.16	-1.55
MX2UCE		111.10	-2.27	-1.15	106.14	-5.64	-2.11
P2YWQ7		111.30	-2.07	-1.05	112.60	0.82	0.31
P7LMHG		115.10	1.73	0.87	110.40	-1.38	-0.51
PPRTLC	*	119.41	6.04	3.05	116.27	4.50	1.68
PUERKY		113.00	-0.37	-0.19	111.00	-0.78	-0.29
Q639J7		113.00	-0.37	-0.19	113.00	1.22	0.46
QDEKEH	X	111.65	-1.72	-0.87	118.18	6.40	2.39
QQTDLG		113.00	-0.37	-0.19	111.70	-0.08	-0.03
R86LK6		112.33	-1.04	-0.52	109.72	-2.05	-0.77
RJ2M6L		111.80	-1.57	-0.79	107.00	-4.78	-1.79
RVC34D		111.78	-1.59	-0.80	112.96	1.18	0.44
T6Q2Y3		114.35	0.98	0.49	110.29	-1.49	-0.56
TBFF2G	*	107.85	-5.52	-2.78	104.27	-7.51	-2.81
TLGJ3B		114.00	0.63	0.32	110.30	-1.48	-0.55
U69UJH	*	118.06	4.69	2.37	113.13	1.36	0.51
U9BQBX		113.40	0.03	0.01	110.10	-1.68	-0.63
UAH2X2		112.60	-0.77	-0.39	115.50	3.72	1.39
UBEH3B		113.55	0.18	0.09	112.59	0.82	0.31
UC6DJ8		113.00	-0.37	-0.19	112.00	0.22	0.08
UG3PLY		110.80	-2.57	-1.30	106.10	-5.68	-2.12
UR3F6L		114.66	1.29	0.65	113.46	1.68	0.63
UVKUBL		114.80	1.43	0.72	114.60	2.82	1.06
UYVGG6		112.70	-0.67	-0.34	110.70	-1.08	-0.40
UZUVR4		113.28	-0.10	-0.05	115.74	3.97	1.48
V24NJ3		113.25	-0.12	-0.06	111.59	-0.19	-0.07
VKHV2Q		113.71	0.34	0.17	113.57	1.79	0.67
VYAJKH		112.54	-0.83	-0.42	114.33	2.56	0.96
XJEVBW		110.00	-3.37	-1.70	109.00	-2.78	-1.04
Y8GQXU		110.40	-2.97	-1.50	109.20	-2.58	-0.96
ZJDWUE		111.40	-1.97	-0.99	112.60	0.82	0.31

		Sample P61			Sample P62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
ZM8ERK		114.87	1.50	0.76	114.32	2.54	0.95
ZV2KLL	X	119.29	5.92	2.99	111.19	-0.59	-0.22

Summary Statistics

	Sample P61		Sample P62	
Grand Means	113.37	ksi	111.78	ksi
Stnd Dev Btwn Labs	1.98	ksi	2.67	ksi

Samples P61, P62 : AISI 4340 (E), AISI 4340 (F)

Statistics based on 87 of 96 reporting participants

Comments on Assigned Data Flags for Test #141

D6LAMF (X) - Data for sample P61 are low.

DP6E8J (X) - Data for both samples are low.

GY2PMV (X) - Data for both samples are high.

GY3YXL (X) - Data for both samples are high.

KFKUAK (X) - Inconsistent in testing between samples.

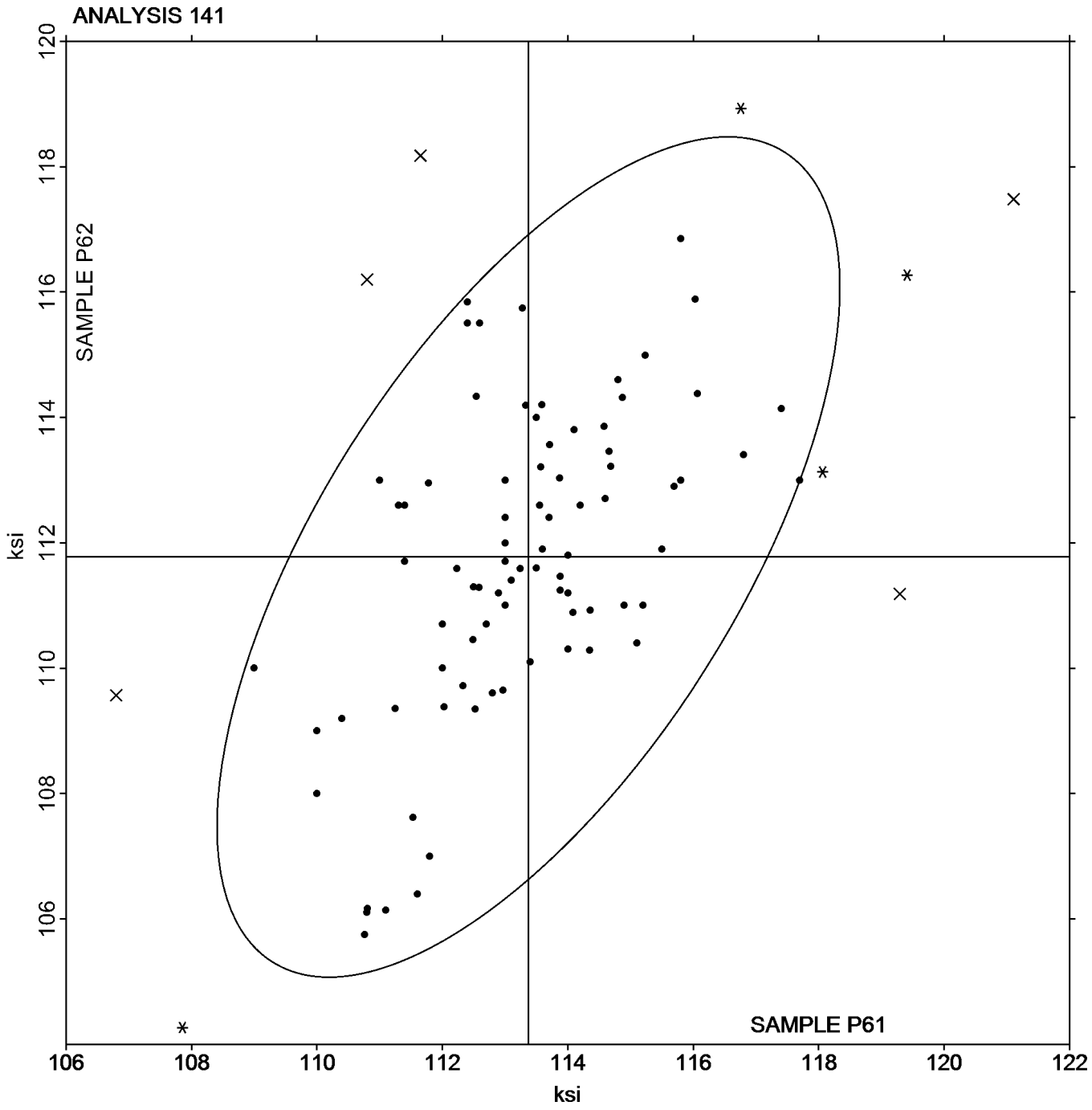
KFP8VV (X) - Data for both samples are low.

LQB4YD (X) - Data for sample P61 are high.

QDEKEH (X) - Inconsistent in testing between samples.

ZV2KLL (X) - Data for sample P61 are high.

SAMPLE P61	SAMPLE P62
113.37 ksi	111.78 ksi



		Sample P61			Sample P62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HCK6N		17.80	-0.07	-0.07	18.40	0.30	0.27
2XE3HV		19.04	1.17	1.07	18.04	-0.06	-0.05
3AXYVK	X	18.11	0.24	0.22	14.53	-3.57	-3.24
3Y4QFG		19.40	1.53	1.41	19.50	1.40	1.27
42CGLH	X	21.00	3.13	2.88	18.90	0.80	0.72
4NTTRC		18.76	0.89	0.82	20.46	2.36	2.14
4WAAHZ		17.40	-0.47	-0.44	16.35	-1.75	-1.59
6PVCTQ		17.00	-0.87	-0.80	17.50	-0.60	-0.54
6WEFZT		17.00	-0.87	-0.80	17.00	-1.10	-1.00
73FE4B		17.90	0.03	0.02	18.70	0.60	0.54
73X36J		19.00	1.13	1.04	18.00	-0.10	-0.09
7AQXTA		18.00	0.13	0.12	18.00	-0.10	-0.09
7LHJY6		17.00	-0.87	-0.80	17.30	-0.80	-0.73
7M4ZLD		16.80	-1.07	-0.99	16.80	-1.30	-1.18
7XNVWR		18.50	0.63	0.58	19.70	1.60	1.45
8FD42U		19.20	1.33	1.22	18.60	0.50	0.45
8GGVL3		18.30	0.43	0.39	17.80	-0.30	-0.27
8GH89T		18.00	0.13	0.12	18.00	-0.10	-0.09
8UKV38		18.40	0.53	0.48	19.30	1.20	1.09
8Z6ADR		18.20	0.33	0.30	18.24	0.14	0.13
8Z8TK4	X	16.66	-1.21	-1.12	20.60	2.50	2.27
99ZWBN	*	18.25	0.38	0.35	16.45	-1.65	-1.50
9Z7WTP		19.60	1.73	1.59	19.90	1.80	1.63
A4XCPB		16.50	-1.37	-1.27	17.50	-0.60	-0.54
AEJKJY		18.60	0.73	0.67	18.50	0.40	0.36
AMWB9W		18.60	0.73	0.67	18.60	0.50	0.45
CHVQW7		17.20	-0.67	-0.62	18.40	0.30	0.27
CN3MVQ		18.50	0.63	0.58	18.70	0.60	0.54
D6LAMF		16.00	-1.87	-1.73	16.00	-2.10	-1.90
DP6E8J	X	18.80	0.93	0.85	16.20	-1.90	-1.72
DYADTD		17.00	-0.87	-0.80	17.10	-1.00	-0.91
EUMATT		17.20	-0.67	-0.62	17.50	-0.60	-0.54
FJVC7T		20.10	2.23	2.05	19.50	1.40	1.27
FXFU2H		17.50	-0.37	-0.34	17.00	-1.10	-1.00
FZGZE3		16.30	-1.57	-1.45	16.90	-1.20	-1.09
GLVJQC		17.69	-0.19	-0.17	18.37	0.27	0.24
GMMH4N		17.30	-0.57	-0.53	17.70	-0.40	-0.36
GTVRJX	X	19.00	1.13	1.04	22.00	3.90	3.53
GV877C		17.70	-0.17	-0.16	19.60	1.50	1.36
GY2PMV		19.40	1.53	1.41	18.02	-0.08	-0.07
GY3YXL		17.80	-0.07	-0.07	17.90	-0.20	-0.18
HARRK4		16.00	-1.87	-1.73	16.50	-1.60	-1.45
HJFNF4		18.90	1.03	0.94	19.10	1.00	0.91
HQLUBE		17.00	-0.87	-0.80	17.00	-1.10	-1.00
HYMTHW		18.10	0.23	0.21	18.50	0.40	0.36
HYTWG8	X	14.80	-3.07	-2.83	14.30	-3.80	-3.45
JF3QWT		18.50	0.63	0.58	19.50	1.40	1.27

		Sample P61			Sample P62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
JGDY22		20.00	2.13	1.96	19.60	1.50	1.36
JWN3FL		17.00	-0.87	-0.80	19.00	0.90	0.82
K6EMZ8		19.00	1.13	1.04	20.00	1.90	1.72
KFKUAK		18.70	0.83	0.76	19.15	1.05	0.95
KFP8VV		15.70	-2.17	-2.00	16.35	-1.75	-1.59
KTVDU2		17.40	-0.47	-0.44	17.20	-0.90	-0.82
KUMC9Y		16.50	-1.37	-1.27	16.50	-1.60	-1.45
KZH846		18.30	0.43	0.39	18.90	0.80	0.72
L2FZ9A		16.00	-1.87	-1.73	16.50	-1.60	-1.45
L97DJN		16.92	-0.95	-0.88	17.49	-0.61	-0.55
LA664B		18.40	0.53	0.48	18.25	0.15	0.14
LA7WKB		19.80	1.93	1.77	20.00	1.90	1.72
LKFV97		18.00	0.13	0.12	18.00	-0.10	-0.09
LL6XEN		16.00	-1.87	-1.73	17.00	-1.10	-1.00
LQB4YD	X	20.34	2.47	2.27	17.42	-0.68	-0.62
MHFLXA		17.00	-0.87	-0.80	17.00	-1.10	-1.00
MNLPVH		18.00	0.13	0.12	18.00	-0.10	-0.09
MRGPNK		18.00	0.13	0.12	19.00	0.90	0.82
MX2UCE	*	18.20	0.33	0.30	20.50	2.40	2.18
P2YWQ7		18.60	0.73	0.67	19.30	1.20	1.09
P7LMHG		16.90	-0.97	-0.90	18.10	0.00	0.00
PPRTLC		16.90	-0.97	-0.90	18.00	-0.10	-0.09
PUERKY		18.00	0.13	0.12	18.00	-0.10	-0.09
Q639J7	*	15.50	-2.37	-2.19	15.00	-3.10	-2.81
QDEKEH		17.70	-0.17	-0.16	17.20	-0.90	-0.82
QQTDLG		18.00	0.13	0.12	17.80	-0.30	-0.27
R86LK6		19.00	1.13	1.04	18.00	-0.10	-0.09
RJ2M6L		18.00	0.13	0.12	18.30	0.20	0.18
RVC34D		18.30	0.43	0.39	17.90	-0.20	-0.18
T6Q2Y3		17.90	0.03	0.02	19.00	0.90	0.82
TBFF2G	*	20.20	2.33	2.14	18.80	0.70	0.63
TLGJ3B		18.30	0.43	0.39	18.40	0.30	0.27
U69UJH		18.50	0.63	0.58	18.00	-0.10	-0.09
U9BQBX		18.00	0.13	0.12	17.00	-1.10	-1.00
UAH2X2		17.00	-0.87	-0.80	17.00	-1.10	-1.00
UBEH3B		18.40	0.53	0.48	18.80	0.70	0.63
UC6DJ8		17.40	-0.47	-0.44	17.30	-0.80	-0.73
UG3PLY		17.86	-0.01	-0.01	18.78	0.68	0.62
UR3F6L		17.00	-0.87	-0.80	17.00	-1.10	-1.00
UVKUBL		16.90	-0.97	-0.90	18.00	-0.10	-0.09
UYVGG6		18.90	1.03	0.94	18.30	0.20	0.18
UZUVR4	X	22.00	4.13	3.80	20.00	1.90	1.72
V24NJ3		18.50	0.63	0.58	18.70	0.60	0.54
VKHV2Q		17.20	-0.67	-0.62	17.40	-0.70	-0.64
VYAJKH		18.70	0.83	0.76	19.70	1.60	1.45
XJEVBW	*	21.00	3.13	2.88	20.00	1.90	1.72
Y8GQXU		16.80	-1.07	-0.99	18.80	0.70	0.63

WebCode	Data Flag	Sample P61 Lab Mean	Sample P61 Diff. from Grand Mean	Sample P61 CPV	Sample P62 Lab Mean	Sample P62 Diff. from Grand Mean	Sample P62 CPV
ZJDWUE		16.70	-1.17	-1.08	17.30	-0.80	-0.73
ZM8ERK		16.40	-1.47	-1.36	16.60	-1.50	-1.36
ZV2KLL	X	20.80	2.93	2.69	17.30	-0.80	-0.73

Summary Statistics

	Sample P61		Sample P62	
Grand Means	17.87	Percent	18.10	Percent
Stnd Dev Btwn Labs	1.09	Percent	1.10	Percent

Samples P61, P62 : AISI 4340 (E), AISI 4340 (F)

Statistics based on 88 of 97 reporting participants

Comments on Assigned Data Flags for Test #142

3AXYVK (X) - Data for sample P62 are low.

42CGLH (X) - Data for sample P61 are high.

8Z8TK4 (X) - Inconsistent in testing between samples.

DP6E8J (X) - Inconsistent in testing between samples.

GTVRJX (X) - Data for sample P62 are high.

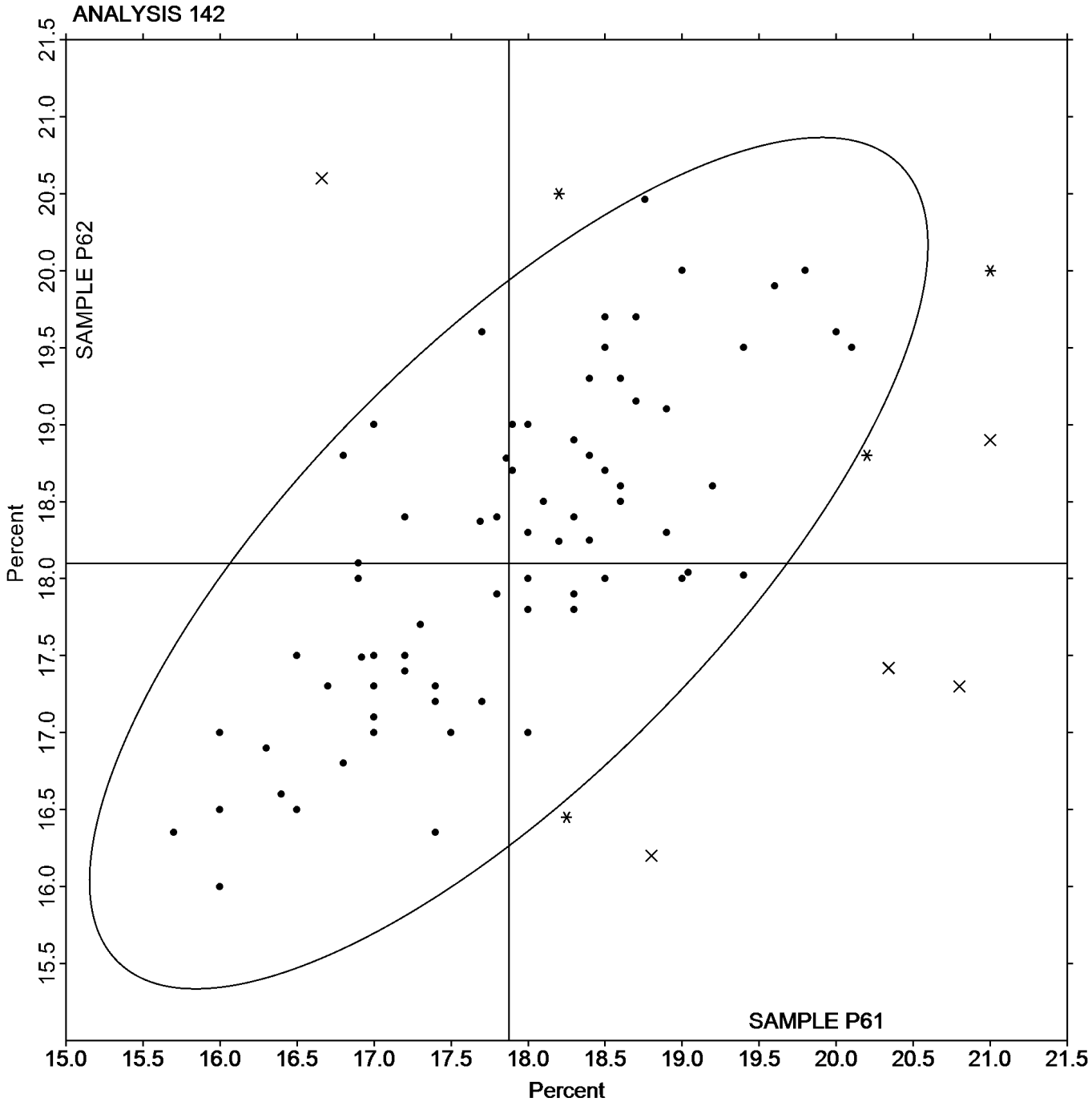
HYTWG8 (X) - Data for both samples are low. Possible Systematic Error.

LQB4YD (X) - Inconsistent in testing between samples.

UZUVR4 (X) - Data for sample P61 are high.

ZV2KLL (X) - Inconsistent in testing between samples.

SAMPLE P61	SAMPLE P62
17.87 Percent	18.10 Percent



		Sample P61			Sample P62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2HCK6N		52.60	-0.53	-0.34	55.70	1.85	1.62
2XE3HV		51.08	-2.05	-1.29	53.03	-0.82	-0.72
3AXYVK		53.07	-0.06	-0.04	54.36	0.51	0.44
3Y4QFG		55.00	1.87	1.18	55.10	1.25	1.09
42CGLH		53.60	0.47	0.30	54.60	0.75	0.65
4NTTRC		52.56	-0.57	-0.36	53.64	-0.21	-0.18
4WAAHZ		52.40	-0.73	-0.46	52.99	-0.86	-0.75
6PVCTQ		53.40	0.27	0.17	54.60	0.75	0.65
6WEFZT		53.10	-0.03	-0.02	54.80	0.95	0.83
73FE4B		53.80	0.67	0.42	54.20	0.35	0.31
73X36J	*	54.00	0.87	0.55	51.00	-2.85	-2.49
7AQXTA		54.40	1.27	0.80	54.50	0.65	0.57
7LHJY6		52.60	-0.53	-0.34	53.40	-0.45	-0.39
7M4ZLD		54.00	0.87	0.55	52.60	-1.25	-1.09
7XNVWR		50.60	-2.53	-1.60	54.00	0.15	0.13
8FD42U	X	58.50	5.37	3.38	58.40	4.55	3.97
8GGVL3		53.40	0.27	0.17	54.40	0.55	0.48
8GH89T		54.50	1.37	0.86	54.00	0.15	0.13
8UKV38		55.91	2.78	1.75	56.09	2.24	1.96
8Z6ADR		53.40	0.27	0.17	52.00	-1.85	-1.62
8Z8TK4		52.10	-1.03	-0.65	54.00	0.15	0.13
99ZWBN		51.88	-1.26	-0.79	52.88	-0.98	-0.85
9Z7WTP	*	50.10	-3.03	-1.91	55.10	1.25	1.09
A4XCPB		55.40	2.27	1.43	55.00	1.15	1.00
AEJKJY		54.10	0.97	0.61	55.30	1.45	1.27
AMWB9W		54.10	0.97	0.61	53.60	-0.25	-0.22
CHVQW7		53.00	-0.13	-0.08	52.80	-1.05	-0.92
CN3MVQ		53.00	-0.13	-0.08	54.00	0.15	0.13
D6LAMF	*	54.00	0.87	0.55	51.00	-2.85	-2.49
DP6E8J		55.50	2.37	1.49	53.40	-0.45	-0.39
DYADTD		52.92	-0.21	-0.13	53.48	-0.37	-0.32
EUMATT		53.20	0.07	0.04	54.50	0.65	0.57
FJVC7T	*	57.00	3.87	2.44	55.80	1.95	1.70
FXFU2H		53.50	0.37	0.23	53.40	-0.45	-0.39
FZGZE3		53.30	0.17	0.11	53.60	-0.25	-0.22
GMMH4N		53.40	0.27	0.17	53.50	-0.35	-0.31
GTVRJX	X	57.00	3.87	2.44	58.00	4.15	3.62
GV877C		50.90	-2.23	-1.41	54.10	0.25	0.22
GY2PMV		52.70	-0.43	-0.27	53.46	-0.39	-0.34
GY3YXL		51.80	-1.33	-0.84	53.30	-0.55	-0.48
HARRK4		50.00	-3.13	-1.97	52.30	-1.55	-1.35
HJFNF4	X	36.00	-17.13	-10.80	37.70	-16.15	-14.10
HQLUBE		54.20	1.07	0.67	54.60	0.75	0.65
HYMTHW		52.80	-0.33	-0.21	53.90	0.05	0.04
JF3QWT		54.40	1.27	0.80	54.90	1.05	0.92
JGDY22		54.00	0.87	0.55	54.50	0.65	0.57
JWN3FL		54.00	0.87	0.55	55.00	1.15	1.00

		Sample P61			Sample P62		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
K6EMZ8	*	54.00	0.87	0.55	57.00	3.15	2.75
KFKUAK		51.80	-1.33	-0.84	53.30	-0.55	-0.48
KFP8VV		50.58	-2.55	-1.61	54.32	0.47	0.41
KTVDU2		50.50	-2.63	-1.66	51.40	-2.45	-2.14
KUMC9Y		54.70	1.57	0.99	54.60	0.75	0.65
L2FZ9A		50.00	-3.13	-1.97	53.00	-0.85	-0.74
LA664B		53.93	0.80	0.50	54.21	0.36	0.31
LA7WKB		53.85	0.72	0.45	54.95	1.10	0.96
LKFV97		53.00	-0.13	-0.08	53.00	-0.85	-0.74
LL6XEN		52.00	-1.13	-0.71	54.00	0.15	0.13
LQB4YD	X	54.00	0.87	0.55	36.99	-16.86	-14.72
MHFLXA		53.90	0.77	0.48	54.00	0.15	0.13
MNLPVH		53.80	0.67	0.42	52.10	-1.75	-1.53
MRGPNK		54.00	0.87	0.55	55.00	1.15	1.00
MX2UCE		52.50	-0.63	-0.40	53.40	-0.45	-0.39
P7LMHG		51.90	-1.23	-0.78	53.40	-0.45	-0.39
PPRTLC		51.44	-1.69	-1.07	53.33	-0.52	-0.45
PUERKY		52.00	-1.13	-0.71	54.00	0.15	0.13
Q639J7	*	50.00	-3.13	-1.97	55.00	1.15	1.00
QDEKEH		52.67	-0.46	-0.29	54.11	0.26	0.23
QQTDLG		52.80	-0.33	-0.21	52.30	-1.55	-1.35
R86LK6		54.80	1.67	1.05	54.40	0.55	0.48
RJ2M6L		54.80	1.67	1.05	53.70	-0.15	-0.13
RVC34D		54.50	1.37	0.86	56.40	2.55	2.23
T6Q2Y3		53.80	0.67	0.42	53.80	-0.05	-0.04
TBFF2G		54.80	1.67	1.05	54.30	0.45	0.39
TLGJ3B		53.80	0.67	0.42	54.30	0.45	0.39
U69UJH		53.60	0.47	0.30	52.40	-1.45	-1.27
U9BQBX		53.40	0.27	0.17	54.30	0.45	0.39
UAH2X2		54.40	1.27	0.80	54.20	0.35	0.31
UBEH3B		53.20	0.07	0.04	51.90	-1.95	-1.70
UC6DJ8		53.20	0.07	0.04	53.50	-0.35	-0.31
UG3PLY		53.58	0.45	0.28	53.51	-0.34	-0.30
UR3F6L		56.00	2.87	1.81	54.00	0.15	0.13
UVKUBL		53.50	0.37	0.23	53.20	-0.65	-0.57
UYVGG6	X	53.80	0.67	0.42	50.40	-3.45	-3.01
UZUVR4		52.00	-1.13	-0.71	54.00	0.15	0.13
V24NJ3		51.56	-1.57	-0.99	54.44	0.59	0.51
VKHV2Q	*	49.50	-3.63	-2.29	51.50	-2.35	-2.05
VYAJKH		55.19	2.06	1.30	55.24	1.39	1.21
XJEVBW		57.00	3.87	2.44	55.00	1.15	1.00
Y8GQXU		52.80	-0.33	-0.21	52.20	-1.65	-1.44
ZJDWUE		49.70	-3.43	-2.16	52.90	-0.95	-0.83
ZM8ERK		52.80	-0.33	-0.21	52.40	-1.45	-1.27
ZV2KLL		50.44	-2.69	-1.70	54.57	0.72	0.63

Summary Statistics

	Sample P61		Sample P62	
Grand Means	53.13	Percent	53.85	Percent
Stnd Dev Btwn Labs	1.59	Percent	1.15	Percent

Samples P61, P62 : AISI 4340 (E), AISI 4340 (F)

Statistics based on 87 of 92 reporting participants

Comments on Assigned Data Flags for Test #143

8FD42U (X) - Data for both samples are high.

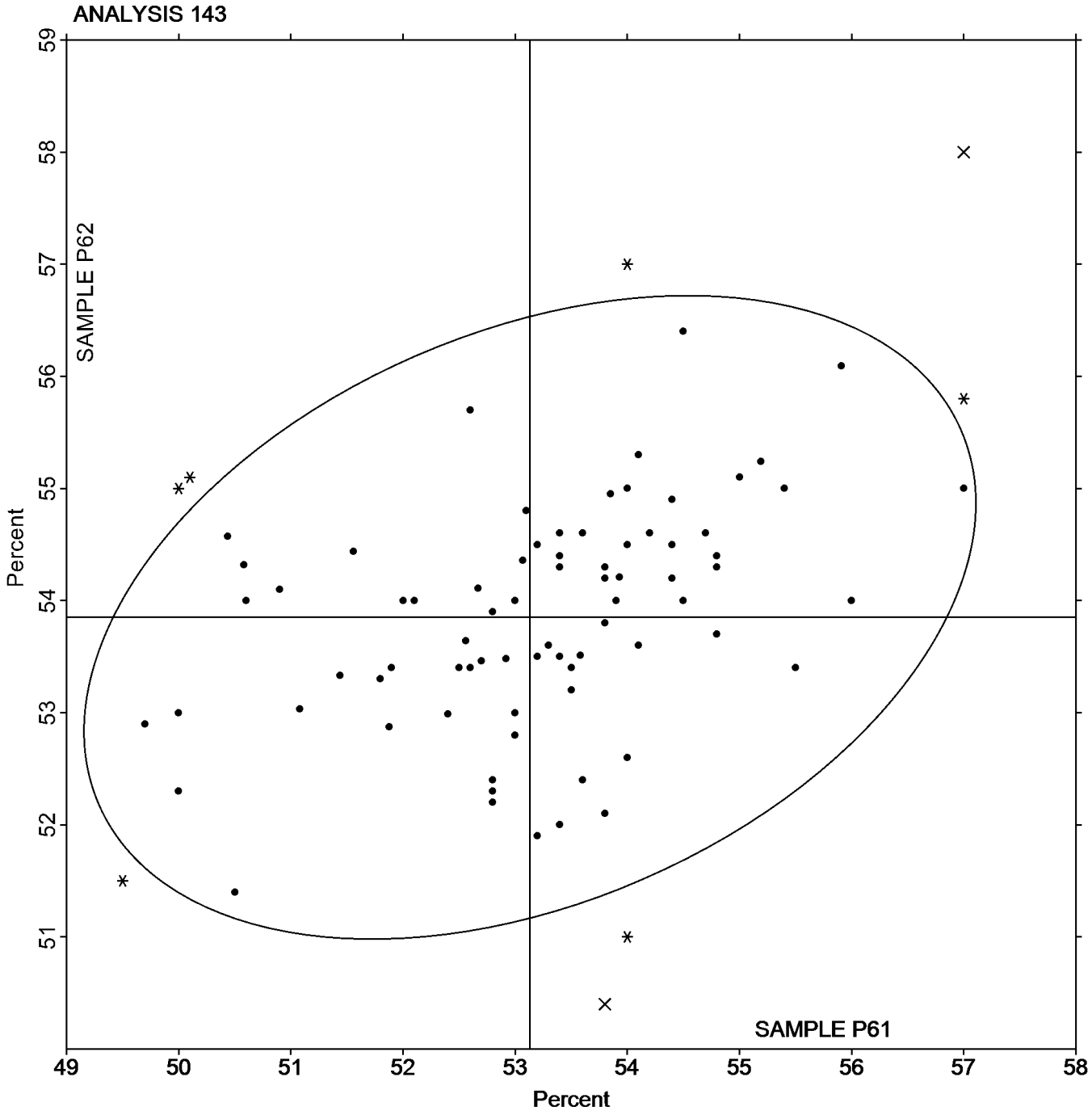
GTVRJX (X) - Data for sample P62 are high.

HJFNF4 (X) - Data for both samples are low.

LQB4YD (X) - Data for sample P62 are low.

UYVGG6 (X) - Data for sample P62 are low.

SAMPLE P61	SAMPLE P62
53.13 Percent	53.85 Percent



		Sample C59			Sample C60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2UGCKW		0.0228	-0.0028	-0.54	0.0308	0.0010	0.16
2XE3HV		0.0246	-0.0010	-0.19	0.0254	-0.0044	-0.73
37GPP9		0.0311	0.0055	1.05	0.0406	0.0107	1.78
4RM6FQ		0.0292	0.0036	0.69	0.0337	0.0039	0.64
7BRBQA		0.0323	0.0066	1.27	0.0332	0.0034	0.56
7F8LXC		0.0351	0.0095	1.81	0.0402	0.0104	1.72
7M92LY		0.0249	-0.0008	-0.15	0.0277	-0.0022	-0.36
7NNZ6N		0.0305	0.0049	0.94	0.0375	0.0076	1.26
8QQD42		0.0295	0.0039	0.75	0.0335	0.0037	0.62
9GPA8W		0.0236	-0.0021	-0.40	0.0266	-0.0033	-0.54
A4XCPB		0.0220	-0.0036	-0.69	0.0298	-0.0001	-0.01
ACUJKX		0.0264	0.0008	0.15	0.0306	0.0008	0.13
B3LYLE		0.0254	-0.0002	-0.04	0.0291	-0.0007	-0.12
BKBVLB		0.0137	-0.0120	-2.30	0.0157	-0.0141	-2.34
CNKMPF		0.0315	0.0059	1.13	0.0361	0.0063	1.04
DHWAP7	*	0.0145	-0.0112	-2.14	0.0232	-0.0066	-1.10
DUT6YU		0.0171	-0.0086	-1.64	0.0195	-0.0104	-1.72
F38YUL		0.0248	-0.0008	-0.15	0.0293	-0.0006	-0.09
FBKH6R		0.0282	0.0026	0.49	0.0318	0.0020	0.33
FZGMLM		0.0204	-0.0052	-1.00	0.0260	-0.0038	-0.64
GMMH4N		0.0292	0.0036	0.69	0.0312	0.0014	0.23
GVEYDZ		0.0222	-0.0034	-0.66	0.0238	-0.0060	-1.00
HBELPJ		0.0236	-0.0020	-0.39	0.0317	0.0018	0.30
HNXU6Q		0.0161	-0.0095	-1.83	0.0172	-0.0126	-2.09
HX9BGC		0.0260	0.0004	0.07	0.0264	-0.0034	-0.57
JNZ9GW		0.0260	0.0004	0.07	0.0322	0.0024	0.39
K72AD3		0.0296	0.0040	0.76	0.0356	0.0058	0.96
KTVDU2		0.0239	-0.0017	-0.33	0.0275	-0.0024	-0.39
L2FZ9A		0.0361	0.0105	2.01	0.0413	0.0115	1.91
M2EHP7		0.0313	0.0057	1.09	0.0327	0.0029	0.48
M43XAY		0.0254	-0.0002	-0.04	0.0302	0.0004	0.07
MAKF49		0.0168	-0.0089	-1.70	0.0206	-0.0092	-1.53
MYNGJH	X	0.00216	-0.0235	-4.50	0.00255	-0.0273	-4.53
N6QTFE		0.0307	0.0051	0.97	0.0346	0.0048	0.80
NDFU3H		0.0234	-0.0022	-0.43	0.0246	-0.0052	-0.87
QDWGYV		0.0282	0.0026	0.49	0.0343	0.0045	0.75
QLPLZJ		0.0284	0.0028	0.53	0.0314	0.0016	0.26
R86LK6		0.0268	0.0012	0.22	0.0332	0.0033	0.55
RJKBMF		0.0234	-0.0022	-0.43	0.0274	-0.0024	-0.40
UPX92D		0.0246	-0.0010	-0.20	0.0292	-0.0006	-0.11
V4MR29		0.0290	0.0034	0.65	0.0300	0.0002	0.03
VBCD3T		0.0311	0.0055	1.05	0.0370	0.0072	1.19
VDKEER		0.0161	-0.0095	-1.82	0.0188	-0.0110	-1.83
XW9LFE		0.0272	0.0016	0.31	0.0326	0.0027	0.46
Y7VT2P		0.0255	-0.0001	-0.02	0.0298	0.0000	0.00
Y8GQXU		0.0288	0.0032	0.61	0.0358	0.0060	0.99
YMRV9M		0.0196	-0.0060	-1.15	0.0197	-0.0102	-1.69

		Sample C59			Sample C60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
ZJDWUE		0.0278	0.0022	0.42	0.0332	0.0034	0.56

Summary Statistics

	Sample C59		Sample C60	
Grand Means	0.0256	inches	0.0298	inches
Stnd Dev Btwn Labs	0.0052	inches	0.0060	inches

Samples C59, C60 : Steel, Steel

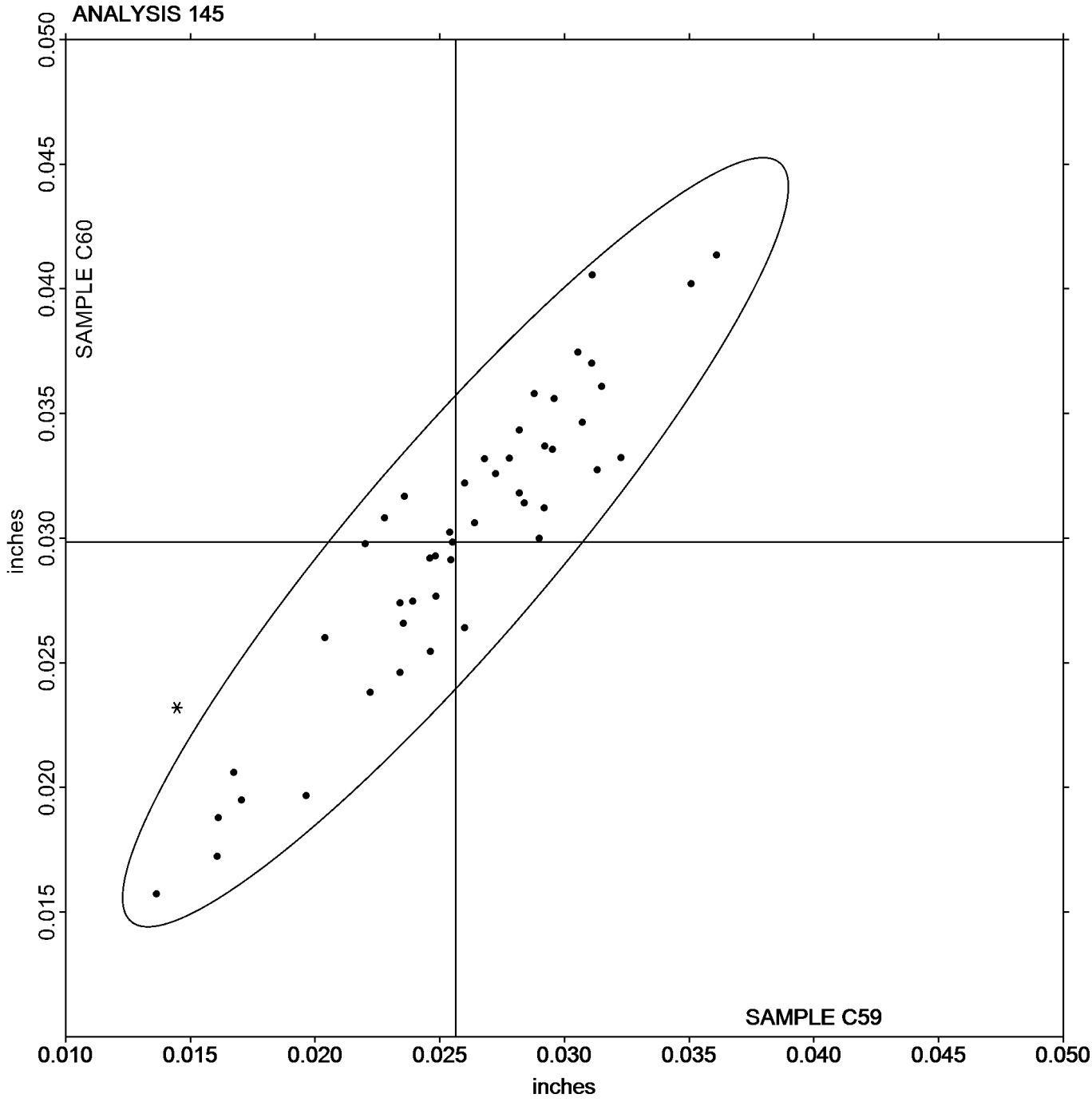
Statistics based on 47 of 48 reporting participants

Comments on Assigned Data Flags for Test #145

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

SAMPLE C59
0.0256 inches

SAMPLE C60
0.0298 inches



		Sample C59			Sample C60		
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV
2UGCKW	X	0.0192	-0.0065	-4.18	0.0300	-0.0009	-0.55
2XE3HV	X	0.0289	0.0032	2.04	0.3743	0.3434	210.87
33EVNH		0.0266	0.0009	0.59	0.0313	0.0004	0.23
37GPP9		0.0250	-0.0007	-0.45	0.0288	-0.0021	-1.28
3RHNAL		0.0258	0.0001	0.08	0.0308	-0.0001	-0.06
3YCJM6		0.0257	0.0000	-0.02	0.0311	0.0002	0.13
4RM6FQ		0.0269	0.0012	0.79	0.0313	0.0004	0.23
7BRBQA		0.0251	-0.0006	-0.40	0.0323	0.0014	0.87
7F8LXC		0.0272	0.0015	1.00	0.0342	0.0033	2.02
7M92LY		0.0283	0.0026	1.66	0.0315	0.0006	0.38
7NNZ6N		0.0256	-0.0001	-0.06	0.0308	-0.0001	-0.05
87DZ6J		0.0264	0.0008	0.48	0.0318	0.0009	0.56
8GGVL3		0.0228	-0.0029	-1.89	0.0298	-0.0010	-0.64
8QQD42		0.0265	0.0008	0.54	0.0323	0.0014	0.86
9GPA8W		0.0259	0.0002	0.15	0.0319	0.0010	0.59
A4XCPB	X	0.0364	0.0107	6.86	0.0520	0.0211	12.96
ACUJKX		0.0266	0.0009	0.58	0.0318	0.0009	0.56
AT4YMX		0.0254	-0.0003	-0.19	0.0310	0.0001	0.07
B3LYLE		0.0246	-0.0011	-0.71	0.0284	-0.0025	-1.53
BKBVLB	X	0.00701	-0.0187	-12.02	0.00776	-0.0231	-14.20
CNKMPF		0.0276	0.0019	1.19	0.0322	0.0013	0.83
DHWAP7		0.0246	-0.0011	-0.71	0.0290	-0.0019	-1.16
DUT6YU		0.0251	-0.0006	-0.37	0.0296	-0.0013	-0.80
DXN7TV	X	0.0228	-0.0029	-1.86	0.0336	0.0027	1.66
EQWWMP		0.0253	-0.0004	-0.23	0.0317	0.0008	0.50
F38YUL		0.0245	-0.0012	-0.76	0.0294	-0.0015	-0.89
FBKH6R		0.0234	-0.0023	-1.48	0.0284	-0.0025	-1.53
FFB4LT		0.0273	0.0016	1.03	0.0301	-0.0008	-0.48
FRVX8T		0.0270	0.0013	0.84	0.0314	0.0005	0.31
FTZBZN		0.0251	-0.0006	-0.37	0.0287	-0.0022	-1.37
GMMH4N	X	0.0240	-0.0017	-1.09	0.0250	-0.0059	-3.62
GNWM47		0.0244	-0.0013	-0.83	0.0280	-0.0029	-1.77
GVEYDZ		0.0240	-0.0017	-1.09	0.0308	-0.0001	-0.05
HBELPJ		0.0267	0.0010	0.65	0.0317	0.0008	0.49
HHE4ZP	X	0.000026	-0.0257	-16.51	0.000032	-0.0309	-18.95
HNXU6Q		0.0240	-0.0017	-1.09	0.0296	-0.0013	-0.82
HX9BGC		0.0262	0.0005	0.32	0.0314	0.0005	0.31
JKXH34		0.0224	-0.0033	-2.12	0.0288	-0.0021	-1.28
JNZ9GW		0.0236	-0.0021	-1.35	0.0296	-0.0013	-0.79
K72AD3		0.0266	0.0009	0.58	0.0316	0.0007	0.44
KTVDU2		0.0249	-0.0008	-0.52	0.0296	-0.0013	-0.79
L2FZ9A	X	0.0258	0.0001	0.04	0.0266	-0.0043	-2.66
LA7WKB		0.0273	0.0016	1.03	0.0339	0.0030	1.82
M2EHP7		0.0249	-0.0008	-0.49	0.0327	0.0019	1.14
M43XAY		0.0244	-0.0013	-0.83	0.0304	-0.0005	-0.30
MAKF49	X	0.0158	-0.0099	-6.36	0.0197	-0.0112	-6.87
MCV62R		0.0262	0.0005	0.33	0.0314	0.0005	0.31

WebCode	Data Flag	Sample C59 Lab Mean	Sample C59 Diff. from Grand Mean	Sample C59 CPV	Sample C60 Lab Mean	Sample C60 Diff. from Grand Mean	Sample C60 CPV
N6QTFE		0.0280	0.0023	1.46	0.0329	0.0020	1.21
NN67T3		0.0267	0.0010	0.64	0.0297	-0.0012	-0.75
P8MJEK	*	0.0288	0.0031	2.01	0.0354	0.0045	2.74
PU7UV3		0.0279	0.0022	1.44	0.0305	-0.0004	-0.23
QDWGYV		0.0259	0.0002	0.13	0.0315	0.0006	0.37
QLPLZJ	*	0.0224	-0.0033	-2.12	0.0304	-0.0005	-0.30
QRU2AM	X	0.0298	0.0041	2.64	0.0381	0.0072	4.43
R86LK6		0.0254	-0.0003	-0.17	0.0313	0.0004	0.23
RJKBMF		0.0236	-0.0021	-1.35	0.0282	-0.0027	-1.65
RVPRXQ		0.0250	-0.0007	-0.42	0.0309	0.0000	-0.01
V4MR29		0.0264	0.0007	0.45	0.0302	-0.0007	-0.42
VBCD3T		0.0230	-0.0027	-1.73	0.0282	-0.0027	-1.65
VDKEER		0.0283	0.0026	1.67	0.0315	0.0006	0.37
XW9LFE		0.0278	0.0021	1.35	0.0332	0.0023	1.42
Y7VT2P		0.0265	0.0008	0.49	0.0311	0.0002	0.15
Y8GQXU		0.0254	-0.0003	-0.19	0.0302	-0.0007	-0.42
ZJDWUE		0.0264	0.0007	0.45	0.0340	0.0031	1.91

Summary Statistics

	Sample C59		Sample C60	
Grand Means	0.0257	inches	0.0309	inches
Stnd Dev Btwn Labs	0.0016	inches	0.0016	inches

Samples C59, C60 : Steel, Steel

Statistics based on 54 of 64 reporting participants

Comments on Assigned Data Flags for Test #146

2UGCKW (X) - Data for sample C59 are low.

2XE3HV (X) - Data for sample C60 are extreme.

A4XCPB (X) - Data for both samples are high. Inconsistent within the determinations of sample C60.

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

DXN7TV (X) - Inconsistent in testing between samples.

GMMH4N (X) - Data for sample C60 are low.

HHE4ZP (X) - Data for both samples are low.

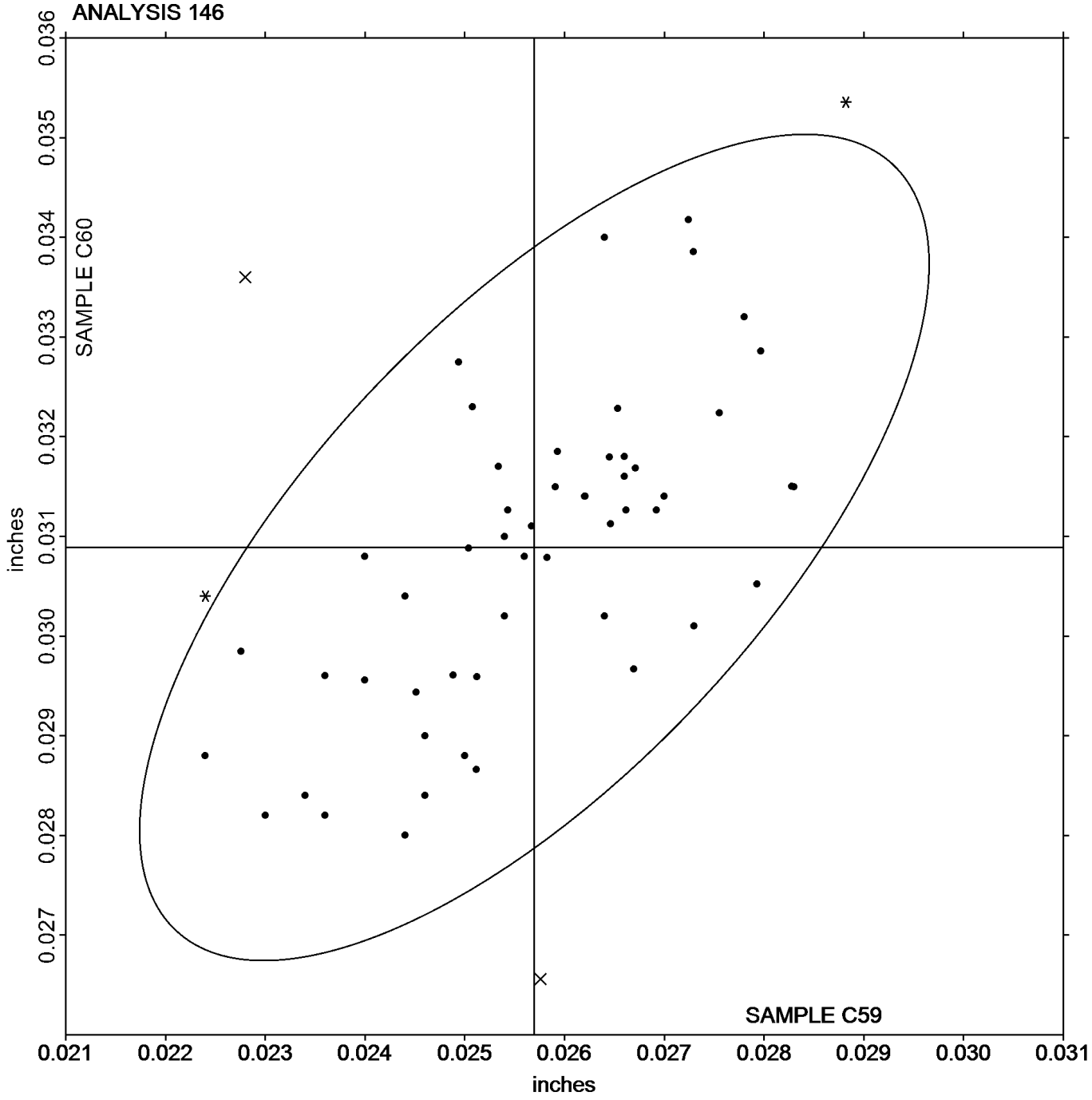
L2FZ9A (X) - Inconsistent in testing between samples.

MAKF49 (X) - Data for both samples are low.

QRU2AM (X) - Data for sample C60 are high.

SAMPLE C59
0.0257 inches

SAMPLE C60
0.0309 inches



		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
23F78F		0.4080	-0.0001	-0.01	0.4047	-0.0018	-0.20	CI
24URN6		0.4010	-0.0071	-0.89	0.4007	-0.0058	-0.63	CI
2AEGXZ		0.4002	-0.0078	-0.99	0.3990	-0.0074	-0.81	CI
2BPRYQ		0.4170	0.0089	1.13	0.4139	0.0074	0.81	CI
2H4CN3		0.4027	-0.0054	-0.68	0.3957	-0.0108	-1.18	OE
2JXZ8Y	X	0.4230	0.0149	1.89	0.4030	-0.0035	-0.38	GD
2MMRT9		0.4020	-0.0061	-0.77	0.4067	0.0002	0.02	OE
2NDJGT		0.4070	-0.0011	-0.13	0.4070	0.0005	0.06	DR
2NZEBM		0.3977	-0.0104	-1.31	0.4033	-0.0031	-0.34	OE
2UDW7B		0.4123	0.0043	0.54	0.4067	0.0002	0.02	CI
2VXVXL	X	0.3890	-0.0191	-2.41	0.3739	-0.0326	-3.55	OE
2XE3HV		0.4027	-0.0054	-0.68	0.4133	0.0069	0.75	CO
33EVNH		0.4093	0.0013	0.16	0.4140	0.0075	0.82	DR
34M4TW		0.4070	-0.0011	-0.13	0.4070	0.0005	0.06	OE
37GPP9		0.3993	-0.0087	-1.10	0.4007	-0.0058	-0.63	CO
3E8E69		0.4101	0.0021	0.26	0.4119	0.0054	0.59	OE
3Y9L6Z		0.4090	0.0009	0.12	0.4093	0.0029	0.31	OE
468WTY		0.4100	0.0019	0.24	0.4100	0.0035	0.39	CI
46N9B4		0.4030	-0.0051	-0.64	0.4020	-0.0045	-0.49	CI
4BJLRZ		0.4110	0.0029	0.37	0.4007	-0.0058	-0.63	OE
4DZ6EP		0.4100	0.0019	0.24	0.4097	0.0032	0.35	OE
4KBHQ2		0.4083	0.0002	0.03	0.3965	-0.0100	-1.09	CO
4NTTRC		0.4069	-0.0012	-0.15	0.4067	0.0003	0.03	OE
4VQNBH		0.4090	0.0009	0.12	0.4160	0.0095	1.04	OE
69DZVR		0.4223	0.0143	1.80	0.4140	0.0075	0.82	OE
6MWTCC		0.4067	-0.0014	-0.18	0.4000	-0.0065	-0.71	OE
73X36J		0.4020	-0.0061	-0.77	0.4043	-0.0021	-0.23	OE
7HMTPD		0.3983	-0.0097	-1.23	0.3927	-0.0138	-1.50	OE
7MAP94		0.3873	-0.0207	-2.62	0.3813	-0.0251	-2.74	OE
7WULRB	X	0.3823	-0.0257	-3.25	0.3763	-0.0301	-3.29	OE
84KKK4		0.4023	-0.0057	-0.72	0.4003	-0.0061	-0.67	CI
89EJVT		0.4106	0.0026	0.32	0.4074	0.0009	0.10	OE
8FD42U		0.4017	-0.0064	-0.81	0.4027	-0.0038	-0.41	CO
8GGVL3		0.4050	-0.0031	-0.39	0.4090	0.0025	0.28	OE
8N89VV		0.4132	0.0052	0.65	0.4134	0.0070	0.76	AE
8NAFDW		0.4190	0.0109	1.38	0.4223	0.0159	1.73	OE
8QQD42		0.4167	0.0086	1.09	0.4043	-0.0021	-0.23	OE
9832FU		0.4050	-0.0031	-0.39	0.3993	-0.0071	-0.78	CI
987V7E	*	0.4167	0.0086	1.09	0.3967	-0.0098	-1.07	OE
99ZWBN		0.3913	-0.0167	-2.11	0.3870	-0.0195	-2.12	OE
9DM6LB		0.4135	0.0054	0.69	0.4125	0.0060	0.66	IR
9GPA8W		0.4153	0.0073	0.92	0.4083	0.0019	0.20	CI
9KRGHE		0.4019	-0.0062	-0.78	0.3963	-0.0102	-1.11	OE
9N7M7V		0.4070	-0.0011	-0.13	0.4120	0.0055	0.60	OE
9Z3MQL		0.4030	-0.0051	-0.64	0.4023	-0.0041	-0.45	OE
9ZLNGV		0.4091	0.0011	0.14	0.4042	-0.0022	-0.24	OE
A2VHYL		0.4129	0.0049	0.62	0.4131	0.0066	0.72	IR

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
A3TVJT	X	0.4317	0.0236	2.98	0.4150	0.0085	0.93	OE
ACUJKX		0.3883	-0.0197	-2.49	0.3900	-0.0165	-1.80	GD
AEDM33		0.4000	-0.0081	-1.02	0.4043	-0.0021	-0.23	OE
AGU8GD		0.4243	0.0163	2.06	0.4230	0.0165	1.80	XX
APMF34		0.4043	-0.0037	-0.47	0.4031	-0.0034	-0.37	OE
AUYKFP		0.4057	-0.0024	-0.30	0.4087	0.0022	0.24	CI
B3LYLE		0.4060	-0.0021	-0.26	0.4007	-0.0058	-0.63	OE
B6CX2X		0.4057	-0.0024	-0.30	0.3987	-0.0078	-0.85	IR
B8PMWA		0.3997	-0.0084	-1.06	0.4003	-0.0061	-0.67	CI
B8XQ3T		0.4063	-0.0017	-0.22	0.4100	0.0035	0.39	OE
BE2UTR		0.4055	-0.0025	-0.32	0.4031	-0.0034	-0.37	OE
BLWEZ9		0.4280	0.0199	2.52	0.4250	0.0185	2.02	OE
BMDUM3		0.3998	-0.0082	-1.04	0.3902	-0.0163	-1.77	GD
BQ6VZV		0.4073	-0.0007	-0.09	0.4070	0.0005	0.06	CI
BT9RJY		0.4050	-0.0031	-0.39	0.4110	0.0045	0.49	OE
C72A86		0.4070	-0.0010	-0.13	0.4025	-0.0040	-0.44	CI
CAAQ8T		0.4018	-0.0063	-0.80	0.3931	-0.0134	-1.46	OE
CF2ZGQ		0.4037	-0.0044	-0.56	0.4043	-0.0021	-0.23	CI
CNY7AD		0.3913	-0.0167	-2.11	0.4020	-0.0045	-0.49	CO
CRJ6UM		0.4100	0.0019	0.24	0.4100	0.0035	0.39	OE
D2MGNV		0.4037	-0.0044	-0.56	0.4004	-0.0061	-0.67	AE
D4NYUX		0.4153	0.0073	0.92	0.4167	0.0102	1.11	GD
DE43LP		0.4010	-0.0071	-0.89	0.3987	-0.0078	-0.85	CI
DFLDYG		0.4130	0.0050	0.63	0.4048	-0.0016	-0.18	CI
DMY8FQ		0.4090	0.0009	0.12	0.4050	-0.0015	-0.16	CI
DTNKGE		0.4088	0.0007	0.09	0.4106	0.0041	0.45	CI
DXGMHT		0.4137	0.0056	0.71	0.4130	0.0065	0.71	CI
DZ2G48		0.4240	0.0159	2.01	0.4237	0.0172	1.88	GD
ET3FD7		0.4067	-0.0014	-0.18	0.3940	-0.0125	-1.36	OE
F6AGTW		0.4184	0.0104	1.31	0.4016	-0.0049	-0.53	OE
F8F43U		0.4137	0.0056	0.71	0.4140	0.0075	0.82	OE
FBKH6R		0.3990	-0.0091	-1.15	0.3947	-0.0118	-1.29	OE
FGETFW		0.4017	-0.0064	-0.81	0.3920	-0.0144	-1.57	OE
FJVC7T		0.4017	-0.0064	-0.80	0.4123	0.0058	0.63	OE
FK6J6E		0.4007	-0.0074	-0.94	0.4093	0.0029	0.31	OE
FKTNZZ		0.4113	0.0033	0.41	0.4047	-0.0018	-0.20	GD
FWHJ29		0.4027	-0.0054	-0.68	0.3917	-0.0148	-1.61	OE
GMMH4N		0.4280	0.0199	2.52	0.4237	0.0172	1.88	OE
GNWM47		0.4257	0.0176	2.23	0.4313	0.0249	2.71	GD
GTVRJX		0.4030	-0.0051	-0.64	0.3970	-0.0095	-1.03	OE
GUAU73		0.4123	0.0043	0.54	0.4067	0.0002	0.02	CI
GY3YXL		0.4209	0.0128	1.62	0.4239	0.0174	1.90	OE
H2JA9Q		0.4140	0.0059	0.75	0.4193	0.0129	1.40	OE
H2PRJN		0.4007	-0.0074	-0.94	0.4007	-0.0058	-0.63	XX
H3GBF3	X	0.3000	-0.1081	-13.66	0.3007	-0.1058	-11.54	OE
HHNP26		0.4100	0.0019	0.24	0.4100	0.0035	0.39	IC
HJFNF4		0.3903	-0.0177	-2.24	0.3963	-0.0101	-1.11	OE

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
HNZZMR		0.4083	0.0002	0.03	0.4040	-0.0025	-0.27	OE
HQG2EL		0.4166	0.0085	1.07	0.4144	0.0079	0.86	CI
JBA6Q7		0.4000	-0.0081	-1.02	0.4033	-0.0031	-0.34	CI
JD2F7K	*	0.4140	0.0059	0.75	0.3900	-0.0165	-1.80	GD
K9WTNV	X	0.4337	0.0256	3.24	0.4343	0.0279	3.04	OE
KH9E4V		0.4080	-0.0001	-0.01	0.4133	0.0069	0.75	OE
KHA62D		0.4019	-0.0062	-0.78	0.3984	-0.0081	-0.88	CI
KLZB8H		0.4157	0.0076	0.96	0.4273	0.0209	2.28	XX
KNUJNJ		0.3973	-0.0107	-1.36	0.3847	-0.0218	-2.38	OE
KTVDU2	X	0.4320	0.0239	3.03	0.4190	0.0125	1.37	CI
LA664B		0.4006	-0.0075	-0.95	0.4017	-0.0048	-0.52	OE
LMMDAM		0.4087	0.0006	0.08	0.4040	-0.0025	-0.27	CI
LNA4P9		0.4043	-0.0037	-0.47	0.3977	-0.0088	-0.96	OE
LQB4YD		0.4160	0.0079	1.00	0.4140	0.0075	0.82	OE
LTBWEY		0.4170	0.0089	1.13	0.4073	0.0009	0.09	DR
M2EHP7		0.4220	0.0139	1.76	0.4118	0.0054	0.59	OE
MAKF49		0.3993	-0.0088	-1.11	0.3970	-0.0095	-1.04	CI
MCLAFD		0.4116	0.0035	0.45	0.4126	0.0062	0.67	CI
MM7HFT		0.4150	0.0069	0.88	0.4110	0.0045	0.49	OE
MNXFVL		0.4033	-0.0047	-0.60	0.4007	-0.0058	-0.63	CI
MR274M	*	0.4224	0.0144	1.82	0.4325	0.0261	2.84	OE
MRGPNK		0.4133	0.0053	0.67	0.4120	0.0055	0.60	OE
MWT9A8		0.4057	-0.0024	-0.30	0.3957	-0.0108	-1.18	OE
MYJJ3L		0.4050	-0.0031	-0.39	0.4053	-0.0011	-0.12	CI
N6QTFE		0.4019	-0.0062	-0.78	0.3969	-0.0096	-1.05	OE
N9P4CE		0.3960	-0.0121	-1.52	0.3983	-0.0081	-0.89	CO
NHUBQE		0.4033	-0.0047	-0.60	0.4133	0.0069	0.75	GD
NPHUBH		0.4065	-0.0016	-0.20	0.4056	-0.0009	-0.10	OE
NXRN9Q		0.4133	0.0053	0.67	0.4120	0.0055	0.60	OE
PBCLQZ		0.3968	-0.0113	-1.43	0.3946	-0.0119	-1.30	OE
PLEDHK		0.4093	0.0013	0.16	0.4037	-0.0028	-0.31	CI
PPVMPW		0.4143	0.0063	0.79	0.4117	0.0052	0.57	XX
PRQE3G		0.4033	-0.0047	-0.60	0.4080	0.0015	0.17	OE
QDEKEH		0.4023	-0.0057	-0.72	0.4094	0.0030	0.32	OE
QLQMRW	X	0.4357	0.0276	3.49	0.4407	0.0342	3.73	OE
R86LK6		0.4140	0.0059	0.75	0.4240	0.0175	1.91	OE
RMTEWJ		0.4108	0.0027	0.34	0.4029	-0.0036	-0.39	OE
RPYFW3		0.4157	0.0076	0.96	0.4087	0.0022	0.24	OE
RVC34D		0.4117	0.0036	0.46	0.4130	0.0065	0.71	CI
RXQCQB		0.4030	-0.0051	-0.64	0.4033	-0.0031	-0.34	OE
T3EGRE		0.4151	0.0070	0.89	0.4168	0.0103	1.12	OE
TDXVVG		0.4117	0.0036	0.46	0.4083	0.0019	0.20	CI
TUCGUJ		0.3968	-0.0112	-1.42	0.4046	-0.0019	-0.21	OE
TWDJM2		0.4028	-0.0052	-0.66	0.4032	-0.0032	-0.35	OE
U69UJH		0.4163	0.0083	1.05	0.4103	0.0039	0.42	OE
UENG2C		0.4068	-0.0012	-0.16	0.3985	-0.0080	-0.87	OE
UF4WVY		0.4233	0.0153	1.93	0.4220	0.0155	1.69	OE

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
UHQA23		0.4111	0.0030	0.38	0.4093	0.0028	0.31	CI
UQ7JVW		0.4047	-0.0034	-0.43	0.4003	-0.0061	-0.67	OE
UYYPFW		0.4113	0.0033	0.41	0.4077	0.0012	0.13	CI
UZUVR4		0.4080	-0.0001	-0.01	0.4060	-0.0005	-0.05	DR
V24NJ3		0.4087	0.0006	0.08	0.4084	0.0020	0.21	XX
V6ZTUG		0.4123	0.0043	0.54	0.4170	0.0105	1.15	XX
V7WWEW		0.4036	-0.0045	-0.56	0.4102	0.0037	0.40	OE
VDKEER		0.4250	0.0170	2.14	0.4207	0.0143	1.56	OE
VDQLXZ		0.4063	-0.0017	-0.22	0.3977	-0.0088	-0.96	CI
VKHV2Q		0.4143	0.0063	0.79	0.4043	-0.0021	-0.23	CI
W2WDU6		0.4129	0.0048	0.61	0.4131	0.0066	0.72	CI
W6C4XE		0.4182	0.0101	1.28	0.4186	0.0121	1.32	OE
WPLJPC		0.4000	-0.0081	-1.02	0.3967	-0.0098	-1.07	OE
WVFFE3		0.4140	0.0059	0.75	0.4147	0.0082	0.89	CO
XJETLR		0.3943	-0.0138	-1.74	0.3855	-0.0209	-2.28	CI
XLJF94	*	0.3931	-0.0149	-1.89	0.4097	0.0032	0.35	OE
YBC3L9		0.4170	0.0089	1.13	0.4156	0.0091	1.00	OE
YL8DRU		0.4123	0.0043	0.54	0.4123	0.0059	0.64	CO
YQAEM6	*	0.3913	-0.0167	-2.11	0.4080	0.0015	0.17	OE
YYRZJF		0.4143	0.0063	0.79	0.4053	-0.0011	-0.12	OE
Z7U2Z2		0.3970	-0.0111	-1.40	0.3903	-0.0161	-1.76	OE
ZQP9D6		0.4200	0.0119	1.51	0.4213	0.0149	1.62	CO
ZRZBY4		0.4163	0.0083	1.05	0.4050	-0.0015	-0.16	OE

Summary Statistics

	Sample L61		Sample L62	
Grand Means	0.4081	Percent	0.4065	Percent
Stnd Dev Btwn Labs	0.0079	Percent	0.0092	Percent

Samples L61, L62 : AISI 4140, AISI 4140

Statistics based on 152 of 164 reporting participants

Key to Method Codes Reported by Participants

AE	Spectrometry - Atomic Emission (AES)	CI	Combustion / IR
CO	Combustion	DR	Spectrometry - Direct Reading OE (DROES)
GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
IR	IR (Absorption / Detection)	OE	Spectrometry - Optical Emission (OES)
XX	Please Indicate Method Used for Current Element		

Comments on Assigned Data Flags for Test #170

2JXZ8Y (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L62.

2VXVXL (X) - Data for sample L62 are low.

7WULRB (X) - Data for both samples are low.

A3TVJT (X) - Data for sample L61 are high.

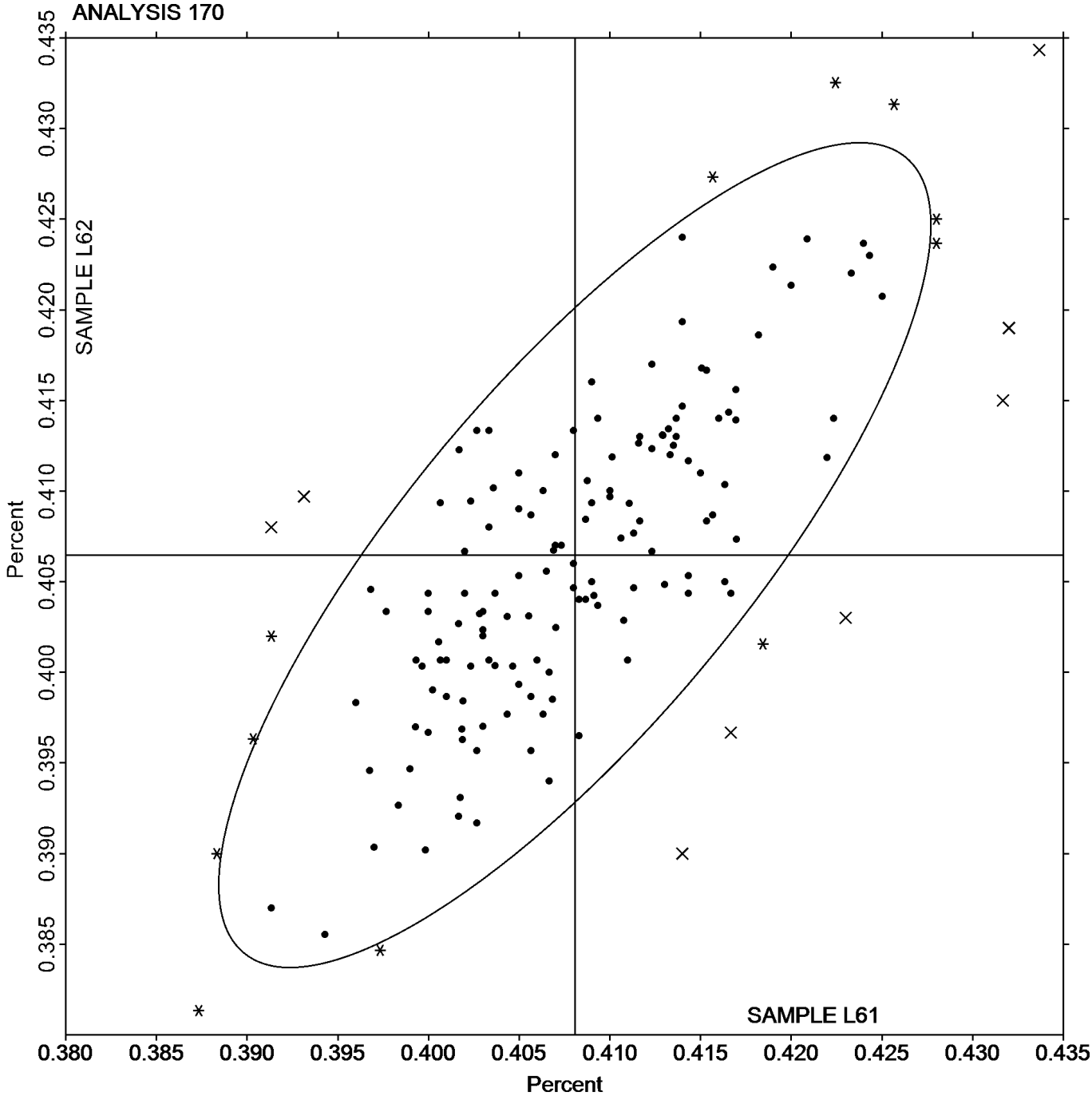
H3GBF3 (X) - Data for both samples are low.

K9WTNV (X) - Data for both samples are high.

KTVDU2 (X) - Data for sample L61 are high.

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

SAMPLE L61	SAMPLE L62
0.4081 Percent	0.4065 Percent



		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
23F78F		0.8690	0.0098	0.93	0.9410	0.0044	0.35	OE
24URN6		0.8530	-0.0062	-0.59	0.9257	-0.0109	-0.85	IC
2AEGXZ		0.8522	-0.0070	-0.67	0.9296	-0.0069	-0.54	OE
2BPRYQ		0.8496	-0.0096	-0.92	0.9419	0.0053	0.41	IC
2CNZ29		0.8530	-0.0062	-0.59	0.9423	0.0058	0.45	XX
2H4CN3		0.8610	0.0018	0.17	0.9423	0.0058	0.45	OE
2JXZ8Y	X	0.8973	0.0382	3.63	0.9400	0.0034	0.27	GD
2MMRT9		0.8487	-0.0105	-1.00	0.9333	-0.0032	-0.25	OE
2NDJGT	X	0.9339	0.0748	7.11	0.8727	-0.0639	-4.98	DR
2NZEBM		0.8617	0.0025	0.24	0.9470	0.0104	0.81	OE
2UDW7B		0.8610	0.0018	0.17	0.9347	-0.0019	-0.15	IC
2VXVXL		0.8690	0.0098	0.93	0.9363	-0.0002	-0.02	OE
2XE3HV		0.8433	-0.0158	-1.51	0.9300	-0.0066	-0.51	OE
33EVNH		0.8520	-0.0072	-0.68	0.9493	0.0128	1.00	DR
34M4TW		0.8493	-0.0098	-0.94	0.9337	-0.0029	-0.23	OE
37GPP9		0.8637	0.0045	0.43	0.9430	0.0064	0.50	AE
3E8E69		0.8756	0.0165	1.57	0.9673	0.0308	2.40	OE
3P6Y7V		0.8763	0.0172	1.63	0.9543	0.0178	1.39	XX
3Y9L6Z		0.8473	-0.0118	-1.13	0.9150	-0.0216	-1.68	OE
468WTY		0.8539	-0.0052	-0.50	0.9318	-0.0047	-0.37	IC
46N9B4		0.8453	-0.0138	-1.32	0.9230	-0.0136	-1.06	IC
4BJLRZ		0.8703	0.0111	1.06	0.9384	0.0018	0.14	OE
4DZ6EP	*	0.8823	0.0232	2.20	0.9413	0.0048	0.37	OE
4KBHQ2		0.8555	-0.0037	-0.35	0.9422	0.0057	0.44	OE
4NTTRC		0.8615	0.0023	0.22	0.9410	0.0044	0.35	OE
4VQNBH		0.8567	-0.0025	-0.24	0.9443	0.0078	0.61	OE
69DZVR		0.8490	-0.0102	-0.97	0.9190	-0.0176	-1.37	OE
6MWTCC		0.8433	-0.0158	-1.51	0.9167	-0.0199	-1.55	OE
6WWU8X		0.8529	-0.0063	-0.60	0.9278	-0.0087	-0.68	OE
73X36J		0.8377	-0.0215	-2.05	0.9113	-0.0252	-1.97	OE
7HMTPD		0.8560	-0.0032	-0.30	0.9280	-0.0086	-0.67	OE
7MAP94		0.8767	0.0175	1.66	0.9433	0.0068	0.53	OE
7WULRB		0.8553	-0.0038	-0.37	0.9280	-0.0086	-0.67	OE
84KKK4		0.8493	-0.0098	-0.94	0.9263	-0.0102	-0.80	IC
89EJVT		0.8557	-0.0035	-0.33	0.9274	-0.0092	-0.71	OE
8GGVL3		0.8727	0.0135	1.28	0.9490	0.0124	0.97	OE
8N89VV		0.8811	0.0219	2.08	0.9615	0.0249	1.94	AE
8NAFDW		0.8497	-0.0095	-0.91	0.9260	-0.0106	-0.82	OE
8QQD42		0.8627	0.0035	0.33	0.9340	-0.0026	-0.20	OE
9832FU		0.8857	0.0265	2.52	0.9670	0.0304	2.37	IC
987V7E		0.8600	0.0008	0.08	0.9400	0.0034	0.27	OE
99ZWBN		0.8517	-0.0075	-0.72	0.9273	-0.0092	-0.72	OE
9DM6LB		0.8602	0.0010	0.10	0.9357	-0.0009	-0.07	IC
9GPA8W		0.8840	0.0248	2.36	0.9703	0.0338	2.63	OE
9KRGHE		0.8634	0.0042	0.40	0.9400	0.0034	0.27	OE
9N7M7V		0.8447	-0.0145	-1.38	0.9283	-0.0082	-0.64	OE
9Z3MQL		0.8513	-0.0078	-0.75	0.9283	-0.0082	-0.64	OE

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
9ZLNGV		0.8606	0.0014	0.13	0.9448	0.0082	0.64	OE
A2VHYL		0.8626	0.0034	0.33	0.9322	-0.0044	-0.34	OE
A3TVJT		0.8433	-0.0158	-1.51	0.9163	-0.0202	-1.58	OE
ACUJKX		0.8740	0.0148	1.41	0.9480	0.0114	0.89	GD
AEDM33		0.8580	-0.0012	-0.11	0.9363	-0.0002	-0.02	OE
AGU8GD		0.8680	0.0088	0.84	0.9457	0.0091	0.71	XX
APMF34		0.8639	0.0048	0.45	0.9270	-0.0096	-0.75	OE
AUYKFP		0.8587	-0.0005	-0.05	0.9383	0.0018	0.14	IC
B3LYLE		0.8570	-0.0022	-0.21	0.9300	-0.0066	-0.51	OE
B6CX2X		0.8563	-0.0028	-0.27	0.9413	0.0048	0.37	OE
B8PMWA	X	0.8780	0.0188	1.79	1.005	0.0684	5.34	IC
B8XQ3T		0.8560	-0.0032	-0.30	0.9417	0.0051	0.40	OE
BE2UTR		0.8614	0.0023	0.21	0.9365	0.0000	0.00	OE
BLWEZ9		0.8423	-0.0168	-1.60	0.9107	-0.0259	-2.02	OE
BMDUM3		0.8583	-0.0008	-0.08	0.9318	-0.0048	-0.37	GD
BQ6VZV		0.8557	-0.0035	-0.33	0.9433	0.0068	0.53	IC
BT9RJY	X	0.8187	-0.0405	-3.86	0.8963	-0.0402	-3.14	OE
C72A86		0.8466	-0.0126	-1.20	0.9185	-0.0181	-1.41	OE
CAAQ8T	X	0.8253	-0.0339	-3.23	0.8864	-0.0502	-3.91	OE
CF2ZGQ		0.8850	0.0258	2.46	0.9670	0.0304	2.37	IC
CNY7AD		0.8573	-0.0018	-0.18	0.9310	-0.0056	-0.43	IC
CRJ6UM		0.8460	-0.0132	-1.25	0.9347	-0.0019	-0.15	OE
D2MGNV		0.8437	-0.0154	-1.47	0.9232	-0.0134	-1.04	AE
D4NYUX		0.8550	-0.0042	-0.40	0.9193	-0.0172	-1.34	GD
DE43LP		0.8647	0.0055	0.52	0.9390	0.0024	0.19	IC
DFLDYG		0.8607	0.0016	0.15	0.9288	-0.0077	-0.60	IC
DMY8FQ		0.8417	-0.0175	-1.67	0.9193	-0.0172	-1.34	IC
DTNKGE		0.8600	0.0008	0.08	0.9300	-0.0066	-0.51	OE
DXGMHT		0.8533	-0.0058	-0.56	0.9267	-0.0099	-0.77	IC
DZ2G48	*	0.8387	-0.0205	-1.95	0.9413	0.0048	0.37	GD
ET3FD7		0.8697	0.0105	1.00	0.9273	-0.0092	-0.72	OE
F6AGTW		0.8603	0.0011	0.10	0.9292	-0.0074	-0.57	OE
F8F43U		0.8607	0.0015	0.14	0.9380	0.0014	0.11	OE
FBKH6R		0.8497	-0.0095	-0.91	0.9207	-0.0159	-1.24	OE
FGETFW		0.8710	0.0118	1.12	0.9370	0.0004	0.03	OE
FJVC7T		0.8429	-0.0163	-1.55	0.9164	-0.0201	-1.57	OE
FK6J6E		0.8517	-0.0075	-0.72	0.9447	0.0081	0.63	OE
FKTNZZ		0.8537	-0.0055	-0.53	0.9363	-0.0002	-0.02	GD
FWHJ29		0.8543	-0.0048	-0.46	0.9430	0.0064	0.50	OE
FXNTQD	X	0.8233	-0.0358	-3.41	0.9200	-0.0166	-1.29	GD
GMMH4N		0.8640	0.0048	0.46	0.9393	0.0028	0.22	OE
GNWM47		0.8557	-0.0035	-0.33	0.9237	-0.0129	-1.01	GD
GTVRJX	*	0.8700	0.0108	1.03	0.9200	-0.0166	-1.29	OE
GUAU73		0.8610	0.0018	0.17	0.9347	-0.0019	-0.15	IC
GY3YXL		0.8531	-0.0060	-0.58	0.9310	-0.0056	-0.44	OE
H2JA9Q		0.8610	0.0018	0.17	0.9460	0.0094	0.74	OE
H2PRJN		0.8493	-0.0098	-0.94	0.9263	-0.0102	-0.80	XX

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
H3GBF3	X	0.8930	0.0338	3.22	0.9760	0.0394	3.07	OE
HHNP26	X	0.8127	-0.0465	-4.43	0.9140	-0.0226	-1.76	IC
HJFNF4		0.8677	0.0085	0.81	0.9480	0.0114	0.89	OE
HNZZMR		0.8656	0.0064	0.61	0.9344	-0.0022	-0.17	OE
HQG2EL		0.8529	-0.0063	-0.60	0.9281	-0.0085	-0.66	IC
JBA6Q7	X	0.8253	-0.0338	-3.22	0.9027	-0.0339	-2.64	IC
JD2F7K		0.8417	-0.0175	-1.67	0.9097	-0.0269	-2.10	WD
K9WTNV	X	0.8990	0.0398	3.79	0.9787	0.0421	3.28	XX
KH9E4V		0.8580	-0.0012	-0.11	0.9383	0.0018	0.14	OE
KHA62D		0.8503	-0.0089	-0.85	0.9307	-0.0058	-0.45	OE
KLZB8H		0.8620	0.0028	0.27	0.9510	0.0144	1.13	XX
KNUJNJ	X	0.9023	0.0432	4.11	0.9833	0.0468	3.65	OE
KTVDU2		0.8457	-0.0135	-1.29	0.9263	-0.0102	-0.80	IC
LA664B		0.8670	0.0078	0.74	0.9437	0.0071	0.56	OE
LMMDAM		0.8657	0.0065	0.62	0.9543	0.0178	1.39	OE
LNA4P9		0.8570	-0.0022	-0.21	0.9307	-0.0059	-0.46	OE
LQB4YD		0.8593	0.0002	0.01	0.9430	0.0064	0.50	OE
LTBWEY		0.8667	0.0075	0.71	0.9427	0.0061	0.48	DR
M2EHP7		0.8630	0.0038	0.36	0.9371	0.0005	0.04	XX
MAKF49		0.8623	0.0032	0.30	0.9377	0.0011	0.09	IC
MCLAFD		0.8529	-0.0062	-0.59	0.9284	-0.0082	-0.64	OE
MM7HFT		0.8570	-0.0022	-0.21	0.9360	-0.0006	-0.04	OE
MR274M	X	0.9223	0.0631	6.01	1.017	0.0802	6.25	OE
MRGPNK		0.8507	-0.0084	-0.80	0.9308	-0.0057	-0.45	OE
MWT9A8		0.8543	-0.0048	-0.46	0.9207	-0.0159	-1.24	OE
MYJJ3L		0.8407	-0.0185	-1.76	0.9284	-0.0082	-0.64	IC
N6QTFE		0.8643	0.0051	0.49	0.9367	0.0001	0.01	OE
N9P4CE		0.8700	0.0108	1.03	0.9460	0.0094	0.74	OE
NBUFRA	X	0.9820	0.1228	11.69	0.8933	-0.0432	-3.37	XX
NHUBQE		0.8733	0.0142	1.35	0.9567	0.0201	1.57	GD
NPHUBH		0.8692	0.0101	0.96	0.9462	0.0096	0.75	OE
NXRN9Q		0.8503	-0.0088	-0.84	0.9310	-0.0056	-0.43	OE
PBCLQZ		0.8831	0.0240	2.28	0.9622	0.0256	2.00	OE
PLEDHK		0.8656	0.0065	0.61	0.9486	0.0120	0.94	OE
PPVMPW		0.8553	-0.0038	-0.37	0.9357	-0.0009	-0.07	XX
PRQE3G		0.8560	-0.0032	-0.30	0.9313	-0.0052	-0.41	OE
QDEKEH		0.8774	0.0182	1.73	0.9619	0.0254	1.98	OE
QLQMRW		0.8680	0.0088	0.84	0.9447	0.0081	0.63	OE
R86LK6		0.8693	0.0101	0.96	0.9488	0.0123	0.96	OE
RB2TPU		0.8637	0.0045	0.43	0.9483	0.0118	0.92	XX
RMTEWJ		0.8563	-0.0029	-0.27	0.9263	-0.0103	-0.80	OE
RPYFW3	X	0.9067	0.0475	4.52	0.9830	0.0464	3.62	OE
RVC34D		0.8467	-0.0125	-1.19	0.9340	-0.0025	-0.20	OE
RXQCQB		0.8767	0.0175	1.66	0.9467	0.0101	0.79	OE
T3EGRE		0.8621	0.0029	0.27	0.9404	0.0039	0.30	OE
TDXVVG		0.8653	0.0062	0.59	0.9490	0.0124	0.97	OE
TUCGUJ		0.8672	0.0080	0.76	0.9348	-0.0018	-0.14	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 171

Carbon & Low Alloy Steel, Element #2
MANGANESE (Mn)

Cycle 127
3rd Qtr 2019

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
TWDJM2		0.8665	0.0073	0.70	0.9471	0.0105	0.82	OE
U69UJH		0.8583	-0.0008	-0.08	0.9257	-0.0109	-0.85	OE
UENG2C	*	0.8309	-0.0283	-2.70	0.8985	-0.0381	-2.97	OE
UF4WVY		0.8730	0.0138	1.32	0.9500	0.0134	1.05	OE
UHQA23		0.8630	0.0038	0.36	0.9327	-0.0039	-0.30	OE
UQ7JVW		0.8550	-0.0042	-0.40	0.9287	-0.0079	-0.62	OE
UYYPFW		0.8763	0.0172	1.63	0.9683	0.0318	2.48	AE
UZUVR4		0.8743	0.0152	1.44	0.9583	0.0218	1.70	DR
V24NJ3		0.8700	0.0108	1.03	0.9442	0.0076	0.59	XX
V6ZTUG		0.8530	-0.0062	-0.59	0.9310	-0.0056	-0.43	OE
V7WWEW		0.8576	-0.0016	-0.15	0.9524	0.0158	1.23	OE
VDKEER		0.8562	-0.0030	-0.28	0.9303	-0.0062	-0.49	OE
VDQLXZ		0.8563	-0.0028	-0.27	0.9310	-0.0056	-0.43	WD
VKHV2Q		0.8563	-0.0028	-0.27	0.9350	-0.0016	-0.12	OE
W2WDU6		0.8510	-0.0081	-0.78	0.9300	-0.0066	-0.51	IC
W6C4XE		0.8555	-0.0036	-0.35	0.9330	-0.0036	-0.28	OE
WPLJPC		0.8700	0.0108	1.03	0.9467	0.0101	0.79	OE
WVFFE3		0.8647	0.0055	0.52	0.9440	0.0074	0.58	OE
XLJF94		0.8447	-0.0145	-1.38	0.9212	-0.0153	-1.20	OE
YBC3L9		0.8644	0.0053	0.50	0.9399	0.0033	0.26	OE
YL8DRU		0.8687	0.0095	0.90	0.9557	0.0191	1.49	OE
YQAEM6		0.8853	0.0262	2.49	0.9620	0.0254	1.98	OE
YYRZJF		0.8523	-0.0068	-0.65	0.9250	-0.0116	-0.90	OE
Z7U2Z2		0.8713	0.0122	1.16	0.9440	0.0074	0.58	OE
ZQP9D6	X	0.8220	-0.0372	-3.54	0.9130	-0.0236	-1.84	OE
ZRZBY4		0.8433	-0.0158	-1.51	0.9063	-0.0302	-2.36	OE

Summary Statistics

	Sample L61		Sample L62	
Grand Means	0.8592	Percent	0.9366	Percent
Stnd Dev Btwn Labs	0.0105	Percent	0.0128	Percent

Samples L61, L62 : AISI 4140, AISI 4140

Statistics based on 149 of 167 reporting participants

Key to Method Codes Reported by Participants

AE	Spectrometry - Atomic Emission (AES)	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 #171

2JXZ8Y (X) - Data for sample L61 are high. Inconsistent within the determinations of sample L61.

2NDJGT (X) - Data for sample L61 are high and data for sample L62 are low.

B8PMWA (X) - Data for sample L62 are high. Inconsistent within the determinations of sample L61.

BT9RJY (X) - Data for both samples are low.

CAAQ8T (X) - Data for both samples are low.

FXNTQD (X) - Data for sample L61 are low.

H3GBF3 (X) - Data for both samples are high. Inconsistent within the determinations of sample L61.

HHNP26 (X) - Data for sample L61 are low.

JBA6Q7 (X) - Data for sample L61 are low.

K9WTNV (X) - Data for both samples are high.

KNUJNJ (X) - Data for both samples are high. Inconsistent within the determinations of sample L62.

MR274M (X) - Data for both samples are high.

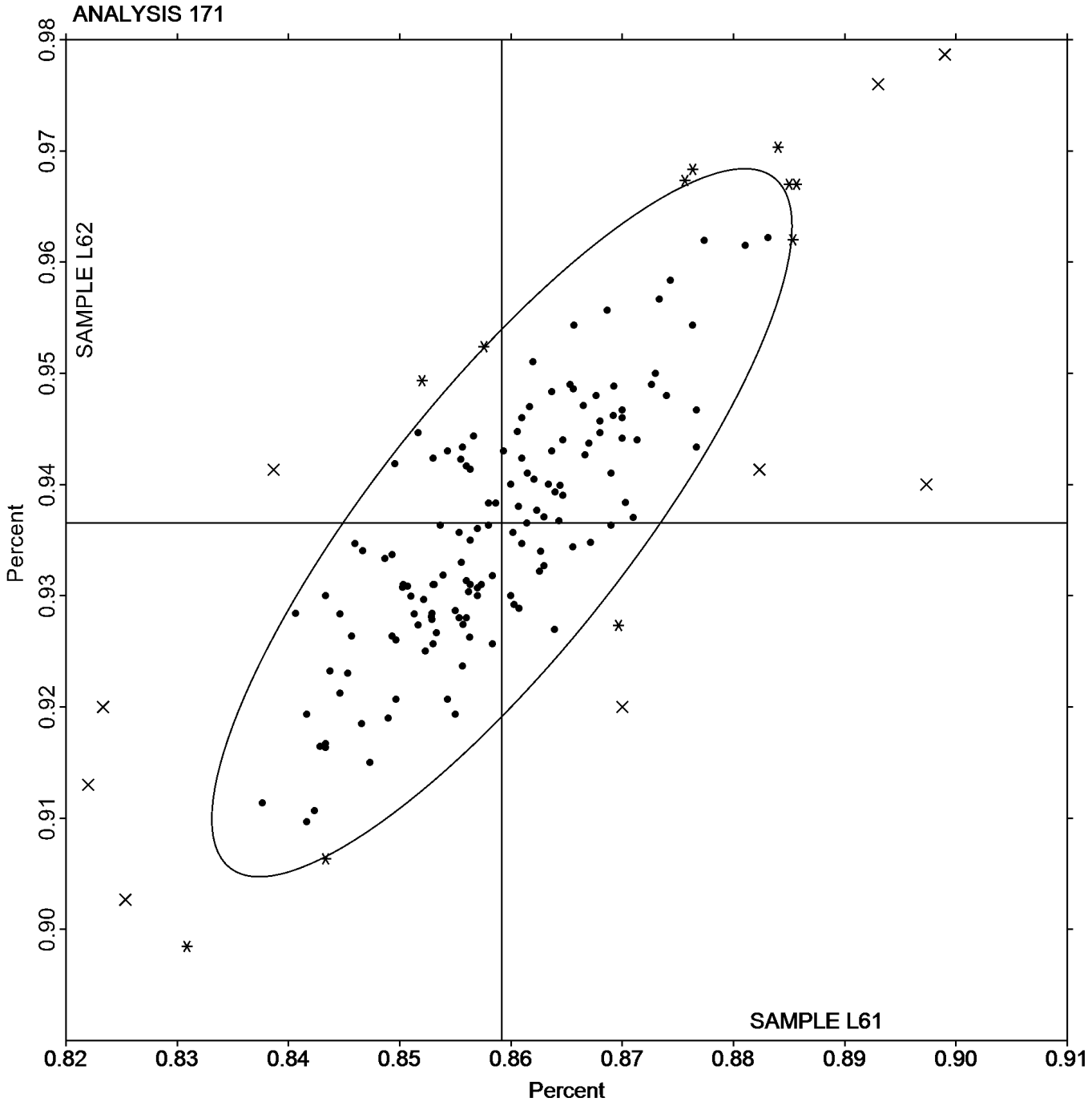
NBUFRA (X) - Data for sample L61 are high and data for sample L62 are low.

RPYFW3 (X) - Data for both samples are high.

ZQP9D6 (X) - Data for sample L61 are low.

SAMPLE L61
0.8592 Percent

SAMPLE L62
0.9366 Percent



		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
23F78F		0.00850	0.00007	0.07	0.0124	0.0002	0.15	OE
24URN6	*	0.00903	0.00060	0.59	0.0143	0.0020	1.81	IC
2AEGXZ		0.00853	0.00010	0.10	0.0126	0.0003	0.30	OE
2BPRYQ		0.00987	0.00143	1.40	0.0128	0.0005	0.49	IC
2CNZ29		0.00967	0.00123	1.21	0.0140	0.0017	1.57	XX
2H4CN3		0.00830	-0.00013	-0.13	0.0123	0.0001	0.06	OE
2JXZ8Y		0.00800	-0.00043	-0.42	0.0113	-0.0009	-0.84	GD
2MMRT9		0.00860	0.00017	0.16	0.0133	0.0010	0.94	OE
2NDJGT	X	0.0118	0.00340	3.33	0.00883	-0.0034	-3.10	DR
2NZEBM	*	0.0107	0.00230	2.25	0.0155	0.0033	2.95	OE
2UDW7B		0.00783	-0.00060	-0.59	0.0118	-0.0005	-0.42	IC
2VXVXL		0.00970	0.00127	1.24	0.0134	0.0012	1.06	OE
2XE3HV	*	0.0103	0.00190	1.86	0.0120	-0.0003	-0.24	OE
33EVNH		0.00733	-0.00110	-1.08	0.0120	-0.0003	-0.24	DR
34M4TW		0.00827	-0.00017	-0.16	0.0120	-0.0003	-0.27	OE
37GPP9		0.00793	-0.00050	-0.49	0.0109	-0.0014	-1.26	AE
3E8E69		0.00890	0.00047	0.46	0.0125	0.0003	0.24	OE
3P6Y7V		0.00900	0.00057	0.56	0.0123	0.0001	0.06	XX
468WTY	X	0.00873	0.00030	0.29	0.00990	-0.0024	-2.13	IC
46N9B4		0.00870	0.00027	0.26	0.0124	0.0001	0.09	IC
4BJLRZ		0.00887	0.00043	0.42	0.0122	0.0000	-0.03	OE
4DZ6EP	X	0.00500	-0.00343	-3.36	0.0170	0.0047	4.28	OE
4KBHQ2		0.00833	-0.00010	-0.10	0.0124	0.0001	0.09	OE
4NTTRC		0.00840	-0.00003	-0.03	0.0121	-0.0002	-0.15	OE
4VQNBH		0.00807	-0.00037	-0.36	0.0125	0.0002	0.21	OE
69DZVR	X	0.0144	0.00600	5.87	0.0177	0.0054	4.88	OE
6MWTCC		0.00850	0.00007	0.07	0.0128	0.0006	0.52	OE
6WWU8X		0.00940	0.00097	0.95	0.0130	0.0007	0.67	OE
73X36J		0.0103	0.00190	1.86	0.0145	0.0023	2.05	OE
7HMTPD		0.00683	-0.00160	-1.56	0.0105	-0.0017	-1.56	OE
7MAP94		0.00733	-0.00110	-1.08	0.0117	-0.0006	-0.54	OE
7WULRB		0.0109	0.00247	2.41	0.0147	0.0025	2.23	OE
84KKK4		0.00873	0.00030	0.29	0.0121	-0.0001	-0.12	XX
89EJVT		0.00797	-0.00047	-0.46	0.0119	-0.0003	-0.30	OE
8GGVL3		0.00857	0.00013	0.13	0.0133	0.0010	0.94	OE
8N89VV		0.00770	-0.00073	-0.72	0.0116	-0.0006	-0.57	AE
8NAFDW		0.00800	-0.00043	-0.42	0.0117	-0.0006	-0.54	OE
8QQD42		0.00670	-0.00173	-1.69	0.00960	-0.0027	-2.40	OE
9832FU		0.00657	-0.00187	-1.83	0.00983	-0.0024	-2.19	IC
987V7E		0.00767	-0.00077	-0.75	0.0113	-0.0009	-0.84	OE
99ZWBN		0.0101	0.00163	1.60	0.0145	0.0022	2.02	OE
9DM6LB		0.00637	-0.00207	-2.02	0.0101	-0.0022	-1.95	IC
9GPA8W		0.00947	0.00103	1.01	0.0121	-0.0001	-0.12	OE
9KRGHE		0.00919	0.00076	0.74	0.0128	0.0006	0.50	OE
9N7M7V		0.00883	0.00040	0.39	0.0130	0.0008	0.70	OE
9Z3MQL		0.00840	-0.00003	-0.03	0.0126	0.0003	0.30	OE
9ZLNGV		0.00837	-0.00007	-0.06	0.0117	-0.0006	-0.54	OE

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
A2VHYL		0.00850	0.00007	0.07	0.0122	-0.0001	-0.09	OE
A3TVJT		0.00867	0.00023	0.23	0.0127	0.0004	0.36	OE
ACUJKX		0.00867	0.00023	0.23	0.0113	-0.0009	-0.84	GD
AEDM33		0.00863	0.00020	0.20	0.0110	-0.0013	-1.14	OE
AGU8GD		0.0100	0.00157	1.53	0.0133	0.0011	0.97	XX
APMF34		0.00897	0.00053	0.52	0.0118	-0.0005	-0.45	OE
AUYKFP		0.00857	0.00013	0.13	0.0124	0.0001	0.12	OE
B3LYLE		0.00880	0.00037	0.36	0.0123	0.0000	0.03	OE
B6CX2X		0.0108	0.00237	2.32	0.0146	0.0023	2.08	OE
B8PMWA		0.00750	-0.00093	-0.91	0.0105	-0.0018	-1.59	IC
B8XQ3T		0.00800	-0.00043	-0.42	0.0130	0.0007	0.67	OE
BE2UTR		0.00800	-0.00043	-0.42	0.0117	-0.0006	-0.51	OE
BLWEZ9	X	0.0107	0.00230	2.25	0.0157	0.0035	3.13	OE
BMDUM3		0.00650	-0.00193	-1.89	0.0102	-0.0020	-1.83	GD
BQ6VZV		0.00630	-0.00213	-2.09	0.0108	-0.0015	-1.35	IC
BT9RJY		0.00870	0.00027	0.26	0.0120	-0.0003	-0.24	OE
C72A86		0.00870	0.00027	0.26	0.0116	-0.0007	-0.63	OE
CAAQ8T	X	0.00383	-0.00460	-4.50	0.00770	-0.0046	-4.12	OE
CF2ZGQ		0.00657	-0.00187	-1.83	0.00987	-0.0024	-2.16	IC
CNY7AD		0.00870	0.00027	0.26	0.0123	0.0000	0.03	IC
CRJ6UM		0.00800	-0.00043	-0.42	0.0127	0.0004	0.36	OE
D2MGNV		0.00867	0.00023	0.23	0.0135	0.0013	1.15	AE
D4NYUX		0.00867	0.00023	0.23	0.0127	0.0004	0.36	GD
DE43LP		0.00700	-0.00143	-1.40	0.0113	-0.0009	-0.84	IC
DFLDYG		0.00823	-0.00020	-0.19	0.0116	-0.0006	-0.57	IC
DMY8FQ		0.00807	-0.00037	-0.36	0.0116	-0.0006	-0.57	IC
DTNKGE		0.00917	0.00073	0.72	0.0126	0.0004	0.33	OE
DXGMHT		0.00673	-0.00170	-1.66	0.0107	-0.0016	-1.41	IR
DZ2G48	X	0.0119	0.00347	3.39	0.0150	0.0027	2.44	GD
ET3FD7		0.00960	0.00117	1.14	0.0135	0.0012	1.12	OE
F6AGTW		0.00717	-0.00127	-1.24	0.0107	-0.0016	-1.41	OE
F8F43U		0.00883	0.00040	0.39	0.0129	0.0007	0.61	OE
FBKH6R		0.00780	-0.00063	-0.62	0.0119	-0.0004	-0.33	OE
FGETFW		0.00820	-0.00023	-0.23	0.0120	-0.0003	-0.24	OE
FJVC7T		0.00953	0.00110	1.08	0.0126	0.0003	0.27	OE
FK6J6E		0.00753	-0.00090	-0.88	0.0123	0.0001	0.06	OE
FKTNZZ	*	0.00733	-0.00110	-1.08	0.00933	-0.0029	-2.64	GD
FWHJ29		0.00850	0.00007	0.07	0.0123	0.0000	0.00	OE
FXNTQD		0.0110	0.00257	2.51	0.0140	0.0017	1.57	GD
GMMH4N		0.0107	0.00223	2.19	0.0143	0.0021	1.87	OE
GNWM47		0.00867	0.00023	0.23	0.0123	0.0001	0.06	GD
GTVRJX	X	0.0130	0.00457	4.47	0.0160	0.0037	3.37	OE
GUAU73		0.00783	-0.00060	-0.59	0.0118	-0.0005	-0.42	IC
GY3YXL		0.00711	-0.00132	-1.29	0.0114	-0.0008	-0.76	OE
H2JA9Q		0.00727	-0.00117	-1.14	0.0123	0.0000	0.00	OE
H2PRJN		0.00873	0.00030	0.29	0.0121	-0.0001	-0.12	XX
H3GBF3	X	0.0113	0.00290	2.84	0.0138	0.0015	1.39	OE

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
HHNP26		0.00700	-0.00143	-1.40	0.0103	-0.0019	-1.74	IC
HJFNF4		0.0107	0.00223	2.19	0.0140	0.0017	1.57	OE
HNZZMR		0.00933	0.00090	0.88	0.0125	0.0003	0.24	OE
HQG2EL		0.00741	-0.00102	-1.00	0.0108	-0.0015	-1.31	IC
JBA6Q7		0.00700	-0.00143	-1.40	0.0110	-0.0013	-1.14	IC
JD2F7K	X	0.00100	-0.00743	-7.27	0.00600	-0.0063	-5.65	WD
K9WTNV		0.00830	-0.00013	-0.13	0.0127	0.0005	0.42	XX
KH9E4V		0.00840	-0.00003	-0.03	0.0126	0.0003	0.30	OE
KHA62D		0.00760	-0.00083	-0.81	0.0112	-0.0011	-0.96	OE
KLZB8H		0.00847	0.00003	0.03	0.0122	0.0000	-0.03	XX
KNUJNJ		0.00890	0.00047	0.46	0.0131	0.0009	0.79	OE
KTVDU2		0.00833	-0.00010	-0.10	0.0127	0.0004	0.36	IC
LA664B		0.00883	0.00040	0.39	0.0131	0.0008	0.76	OE
LMMDAM		0.00703	-0.00141	-1.38	0.0106	-0.0017	-1.53	OE
LNA4P9	X	0.0130	0.00457	4.47	0.0150	0.0027	2.47	OE
LQB4YD		0.0101	0.00163	1.60	0.0142	0.0020	1.78	OE
LTBWEY		0.00850	0.00007	0.07	0.0125	0.0002	0.18	DR
M2EHP7		0.0107	0.00226	2.21	0.0144	0.0021	1.94	XX
MAKF49		0.00833	-0.00010	-0.10	0.0133	0.0011	0.97	IC
MCLAFD		0.00810	-0.00033	-0.33	0.0122	-0.0001	-0.06	OE
MM7HFT	*	0.00767	-0.00077	-0.75	0.00967	-0.0026	-2.34	OE
MR274M		0.00923	0.00080	0.78	0.0145	0.0022	2.02	OE
MRGPNK		0.00809	-0.00034	-0.33	0.0120	-0.0003	-0.24	OE
MWT9A8		0.00757	-0.00087	-0.85	0.0105	-0.0018	-1.59	OE
MYJJ3L		0.00841	-0.00002	-0.02	0.0121	-0.0002	-0.19	IC
N6QTFE		0.00914	0.00071	0.70	0.0127	0.0005	0.44	OE
N9P4CE		0.00800	-0.00043	-0.42	0.0120	-0.0003	-0.24	OE
NBUFRA	X	0.0120	0.00357	3.49	0.00900	-0.0033	-2.95	XX
NHUBQE		0.00900	0.00057	0.56	0.0123	0.0001	0.06	GD
NPHUBH		0.00980	0.00137	1.34	0.0130	0.0007	0.64	OE
NXRN9Q		0.00800	-0.00043	-0.42	0.0120	-0.0003	-0.24	OE
PBCLQZ	X	0.0162	0.00780	7.63	0.0207	0.0085	7.65	OE
PLEDHK		0.00947	0.00103	1.01	0.0130	0.0008	0.70	OE
PPVMPW	X	0.00400	-0.00443	-4.34	0.00767	-0.0046	-4.15	XX
PRQE3G		0.00763	-0.00080	-0.78	0.0119	-0.0004	-0.36	OE
QDEKEH		0.00783	-0.00060	-0.59	0.0118	-0.0005	-0.42	OE
QLQMRW		0.00800	-0.00043	-0.42	0.0127	0.0004	0.36	OE
R86LK6		0.00877	0.00034	0.33	0.0132	0.0009	0.82	OE
RB2TPU		0.0103	0.00190	1.86	0.0150	0.0027	2.47	XX
RMTEWJ		0.00847	0.00003	0.03	0.0124	0.0001	0.12	OE
RPYFW3		0.00623	-0.00220	-2.15	0.0104	-0.0019	-1.71	OE
RVC34D		0.00807	-0.00037	-0.36	0.0113	-0.0009	-0.84	OE
RXQCQB		0.0107	0.00223	2.19	0.0140	0.0017	1.57	OE
T3EGRE		0.00833	-0.00010	-0.10	0.0124	0.0002	0.15	OE
TDXVVG		0.00685	-0.00158	-1.55	0.0110	-0.0013	-1.17	OE
TUCGUJ		0.00877	0.00033	0.33	0.0124	0.0001	0.09	OE
TWDJM2		0.00807	-0.00037	-0.36	0.0119	-0.0004	-0.36	OE

WebCode	Data Flag	Sample L61 Lab Mean	Sample L61 Diff. from Grand Mean	Sample L61 CPV	Sample L62 Lab Mean	Sample L62 Diff. from Grand Mean	Sample L62 CPV	Method
U69UJH		0.00800	-0.00043	-0.42	0.0130	0.0007	0.67	OE
UENG2C	X	0.00340	-0.00503	-4.92	0.00810	-0.0042	-3.76	OE
UF4WVY		0.0103	0.00190	1.86	0.0131	0.0009	0.79	OE
UHQA23		0.00790	-0.00053	-0.52	0.0117	-0.0006	-0.54	WD
UQ7JVW		0.00867	0.00023	0.23	0.0133	0.0011	0.97	OE
UYYPFW		0.00833	-0.00010	-0.10	0.0124	0.0001	0.09	AE
UZUVR4		0.00767	-0.00077	-0.75	0.0120	-0.0003	-0.24	DR
V24NJ3		0.00763	-0.00080	-0.78	0.0115	-0.0008	-0.72	XX
V6ZTUG		0.00730	-0.00113	-1.11	0.0108	-0.0015	-1.32	OE
V7WWEW		0.00757	-0.00087	-0.85	0.0118	-0.0004	-0.39	OE
VDKEER		0.00962	0.00119	1.16	0.0127	0.0004	0.40	OE
VDQLXZ		0.00883	0.00040	0.39	0.0121	-0.0002	-0.15	WD
VKHV2Q		0.00820	-0.00023	-0.23	0.0120	-0.0003	-0.24	OE
W2WDU6		0.00877	0.00033	0.33	0.0124	0.0001	0.12	IC
W6C4XE		0.00763	-0.00080	-0.78	0.0120	-0.0003	-0.27	OE
WPLJPC		0.00833	-0.00010	-0.10	0.0117	-0.0006	-0.54	OE
WVFFE3		0.00820	-0.00023	-0.23	0.0121	-0.0001	-0.12	OE
XLJF94		0.00717	-0.00127	-1.24	0.0107	-0.0016	-1.41	OE
YBC3L9		0.00843	0.00000	0.00	0.0122	0.0000	-0.03	OE
YL8DRU		0.00900	0.00057	0.56	0.0129	0.0007	0.61	OE
YQAEM6	X	0.00300	-0.00543	-5.31	0.00767	-0.0046	-4.15	OE
YYRZJF		0.00900	0.00057	0.56	0.0130	0.0007	0.67	OE
Z7U2Z2		0.00807	-0.00037	-0.36	0.0114	-0.0009	-0.78	OE
ZQP9D6		0.00757	-0.00087	-0.85	0.0118	-0.0005	-0.45	OE
ZRZBY4		0.00767	-0.00077	-0.75	0.0107	-0.0016	-1.44	OE

Summary Statistics

	Sample L61		Sample L62	
Grand Means	0.00843	Percent	0.0123	Percent
Stnd Dev Btwn Labs	0.00102	Percent	0.0011	Percent

Samples L61, L62 : AISI 4140, AISI 4140

Statistics based on 147 of 166 reporting participants

Key to Method Codes Reported by Participants

AE	Spectrometry - Atomic Emission (AES)	DR	Spectrometry - Direct Reading OE (DROES)
GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
IR	IR (Absorption / Detection)	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 #172

2NDJGT (X) - Data for sample L61 are high and data for sample L62 are low. Inconsistent in testing between samples.

468WTY (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L61.

4DZ6EP (X) - Data for sample L61 are low and data for sample L62 are high. Inconsistent in testing between samples. Inconsistent within the determinations of sample L61.

69DZVR (X) - Data for both samples are high. Possible Systematic Error.

BLWEZ9 (X) - Data for sample L62 are high.

CAAQ8T (X) - Data for both samples are low. Possible Systematic Error.

DZ2G48 (X) - Data for sample L61 are high.

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

H3GBF3 (X) - Data for sample L61 are high.

JD2F7K (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample L62.

LNA4P9 (X) - Data for sample L61 are high.

NBUFRA (X) - Data for sample L61 are high and data for sample L62 are low. Inconsistent in testing between samples.

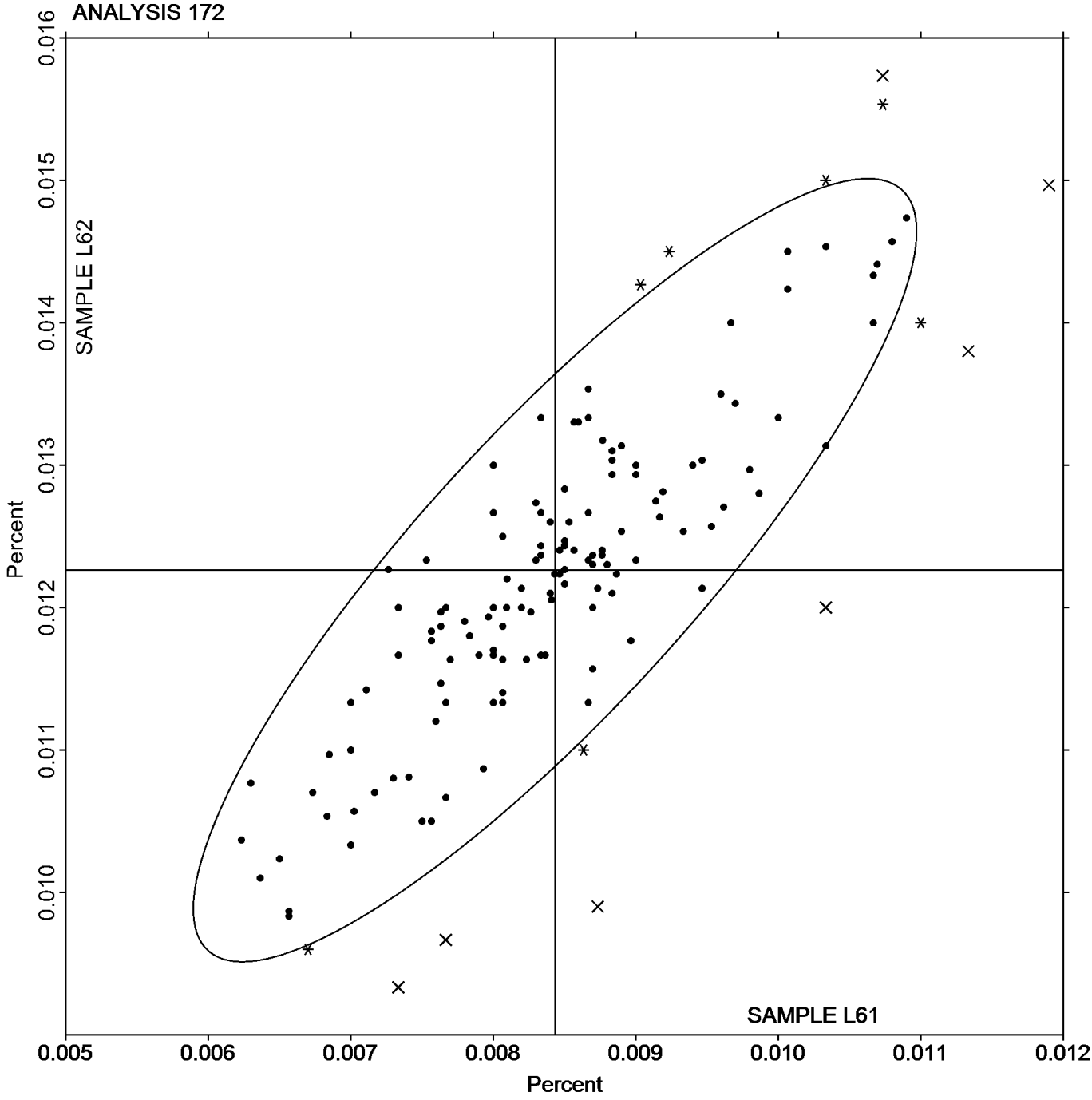
PBCLQZ (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample L61.

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

UENG2C (X) - Data for both samples are low. Possible Systematic Error.

YQAEM6 (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.

SAMPLE L61	SAMPLE L62
0.00843 Percent	0.0123 Percent



		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
23F78F		0.0335	-0.0029	-0.83	0.0324	-0.0024	-0.73	CI
24URN6		0.0351	-0.0012	-0.35	0.0321	-0.0027	-0.82	CI
2AEGXZ		0.0355	-0.0009	-0.26	0.0344	-0.0004	-0.11	CI
2BPRYQ		0.0378	0.0014	0.40	0.0335	-0.0013	-0.39	CI
2CNZ29		0.0427	0.0063	1.81	0.0430	0.0082	2.43	XX
2H4CN3		0.0361	-0.0003	-0.08	0.0344	-0.0004	-0.13	OE
2JXZ8Y		0.0340	-0.0024	-0.68	0.0297	-0.0051	-1.53	GD
2MMRT9		0.0406	0.0042	1.22	0.0411	0.0063	1.86	OE
2NDJGT		0.0392	0.0029	0.83	0.0384	0.0036	1.08	DR
2NZEBM		0.0360	-0.0003	-0.10	0.0361	0.0013	0.39	OE
2UDW7B		0.0327	-0.0037	-1.06	0.0310	-0.0038	-1.14	CI
2VXVXL	*	0.0441	0.0077	2.22	0.0397	0.0049	1.45	OE
2XE3HV		0.0347	-0.0017	-0.49	0.0343	-0.0005	-0.14	CO
33EVNH		0.0293	-0.0070	-2.02	0.0297	-0.0051	-1.53	DR
34M4TW		0.0320	-0.0044	-1.27	0.0322	-0.0026	-0.79	OE
37GPP9		0.0409	0.0045	1.31	0.0392	0.0044	1.29	CO
3E8E69		0.0304	-0.0059	-1.71	0.0311	-0.0037	-1.11	OE
3Y9L6Z		0.0277	-0.0087	-2.50	0.0263	-0.0085	-2.52	OE
468WTY		0.0340	-0.0024	-0.68	0.0330	-0.0018	-0.54	CI
46N9B4		0.0307	-0.0057	-1.64	0.0294	-0.0054	-1.60	CI
4BJLRZ		0.0372	0.0008	0.23	0.0344	-0.0004	-0.12	OE
4DZ6EP	X	0.0230	-0.0134	-3.85	0.0363	0.0015	0.45	OE
4KBHQ2		0.0379	0.0015	0.44	0.0350	0.0002	0.06	CO
4NTTRC		0.0378	0.0015	0.42	0.0364	0.0016	0.48	OE
4VQNBH		0.0385	0.0022	0.62	0.0391	0.0043	1.26	OE
69DZVR		0.0441	0.0078	2.24	0.0396	0.0048	1.41	OE
6MWTCC		0.0381	0.0017	0.50	0.0362	0.0014	0.42	OE
73X36J		0.0340	-0.0023	-0.67	0.0345	-0.0003	-0.10	OE
7HMTPD		0.0340	-0.0023	-0.67	0.0317	-0.0031	-0.92	OE
7MAP94		0.0383	0.0020	0.57	0.0337	-0.0011	-0.34	OE
7WULRB		0.0415	0.0052	1.49	0.0379	0.0031	0.93	OE
84KKK4		0.0340	-0.0024	-0.68	0.0323	-0.0025	-0.74	CI
89EJVT		0.0350	-0.0014	-0.40	0.0329	-0.0019	-0.56	OE
8GGVL3		0.0380	0.0016	0.47	0.0375	0.0027	0.81	OE
8N89VV		0.0350	-0.0014	-0.39	0.0331	-0.0017	-0.51	AE
8NAFDW		0.0350	-0.0014	-0.39	0.0350	0.0002	0.05	OE
8QQD42		0.0393	0.0030	0.85	0.0353	0.0005	0.15	OE
9832FU		0.0343	-0.0020	-0.59	0.0320	-0.0028	-0.84	CI
987V7E		0.0370	0.0006	0.18	0.0377	0.0029	0.85	OE
99ZWBN		0.0377	0.0013	0.38	0.0379	0.0031	0.92	OE
9DM6LB		0.0328	-0.0036	-1.04	0.0314	-0.0034	-1.03	IR
9GPA8W		0.0392	0.0029	0.83	0.0369	0.0021	0.63	CI
9KRGHE		0.0354	-0.0010	-0.28	0.0335	-0.0013	-0.38	OE
9N7M7V		0.0380	0.0016	0.47	0.0367	0.0019	0.55	OE
9Z3MQL		0.0383	0.0020	0.57	0.0372	0.0024	0.71	OE
9ZLNGV		0.0399	0.0035	1.01	0.0387	0.0039	1.16	OE
A2VHYL		0.0366	0.0003	0.08	0.0342	-0.0006	-0.17	IR

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
A3TVJT		0.0323	-0.0040	-1.16	0.0300	-0.0048	-1.43	OE
ACUJKX		0.0397	0.0033	0.95	0.0367	0.0019	0.55	GD
AEDM33		0.0355	-0.0009	-0.26	0.0344	-0.0004	-0.12	OE
AGU8GD		0.0390	0.0026	0.76	0.0363	0.0015	0.45	XX
APMF34		0.0352	-0.0011	-0.33	0.0308	-0.0040	-1.19	OE
AUYKFP		0.0352	-0.0012	-0.35	0.0339	-0.0009	-0.28	CI
B3LYLE		0.0358	-0.0006	-0.17	0.0349	0.0001	0.01	OE
B6CX2X		0.0356	-0.0008	-0.23	0.0335	-0.0013	-0.39	IR
B8PMWA		0.0377	0.0013	0.37	0.0367	0.0019	0.55	CI
B8XQ3T		0.0353	-0.0010	-0.30	0.0360	0.0012	0.35	OE
BE2UTR		0.0374	0.0010	0.30	0.0360	0.0012	0.35	OE
BLWEZ9	X	0.0501	0.0137	3.95	0.0458	0.0110	3.26	OE
BMDUM3		0.0400	0.0036	1.05	0.0386	0.0038	1.12	GD
BQ6VZV		0.0334	-0.0030	-0.85	0.0307	-0.0041	-1.22	CI
BT9RJY		0.0340	-0.0024	-0.68	0.0340	-0.0008	-0.24	OE
C72A86		0.0341	-0.0023	-0.66	0.0323	-0.0025	-0.74	CI
CAAQ8T	X	0.0504	0.0140	4.03	0.0443	0.0095	2.81	OE
CF2ZGQ		0.0340	-0.0024	-0.68	0.0327	-0.0021	-0.64	CI
CNY7AD		0.0327	-0.0036	-1.05	0.0331	-0.0017	-0.51	CO
CRJ6UM		0.0367	0.0003	0.09	0.0390	0.0042	1.24	CI
D2MGNV	*	0.0453	0.0090	2.58	0.0421	0.0073	2.16	AE
D4NYUX		0.0367	0.0003	0.09	0.0347	-0.0001	-0.04	GD
DE43LP		0.0350	-0.0014	-0.39	0.0323	-0.0025	-0.74	CI
DFLDYG		0.0349	-0.0015	-0.42	0.0326	-0.0022	-0.67	CI
DMY8FQ		0.0355	-0.0008	-0.24	0.0333	-0.0015	-0.44	CI
DTNKGE		0.0347	-0.0016	-0.47	0.0333	-0.0015	-0.46	CI
DXGMHT		0.0348	-0.0016	-0.46	0.0341	-0.0007	-0.20	CI
DZ2G48		0.0408	0.0044	1.28	0.0359	0.0011	0.33	GD
ET3FD7		0.0390	0.0026	0.76	0.0375	0.0027	0.81	OE
F6AGTW		0.0412	0.0049	1.40	0.0386	0.0038	1.12	OE
F8F43U		0.0392	0.0028	0.81	0.0342	-0.0006	-0.17	OE
FBKH6R		0.0380	0.0016	0.46	0.0354	0.0006	0.16	OE
FGETFW		0.0417	0.0053	1.54	0.0381	0.0033	0.98	OE
FJVC7T		0.0381	0.0017	0.50	0.0378	0.0030	0.88	OE
FK6J6E		0.0390	0.0026	0.75	0.0389	0.0041	1.22	OE
FKTNZZ		0.0317	-0.0047	-1.35	0.0300	-0.0048	-1.43	GD
FWHJ29		0.0347	-0.0017	-0.48	0.0333	-0.0015	-0.46	OE
GMMH4N		0.0413	0.0050	1.43	0.0403	0.0055	1.64	OE
GNWM47		0.0370	0.0006	0.18	0.0367	0.0019	0.55	GD
GTVRJX		0.0280	-0.0084	-2.41	0.0270	-0.0078	-2.32	OE
GUAU73		0.0327	-0.0037	-1.06	0.0310	-0.0038	-1.14	CI
GY3YXL		0.0375	0.0011	0.31	0.0353	0.0005	0.14	XX
H2JA9Q		0.0393	0.0029	0.83	0.0412	0.0064	1.89	OE
H2PRJN		0.0342	-0.0022	-0.63	0.0332	-0.0016	-0.48	XX
H3GBF3	X	0.0128	-0.0235	-6.77	0.0118	-0.0230	-6.84	OE
HHNP26		0.0343	-0.0020	-0.59	0.0330	-0.0018	-0.54	IC
HJFNF4		0.0290	-0.0074	-2.12	0.0297	-0.0051	-1.53	OE

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
HNZZMR		0.0391	0.0028	0.80	0.0345	-0.0003	-0.09	OE
HQG2EL		0.0356	-0.0008	-0.22	0.0349	0.0001	0.02	CI
JBA6Q7		0.0333	-0.0030	-0.87	0.0310	-0.0038	-1.13	CI
JD2F7K		0.0357	-0.0007	-0.20	0.0327	-0.0021	-0.64	WD
K9WTNV		0.0426	0.0062	1.78	0.0411	0.0063	1.87	XX
KH9E4V		0.0440	0.0076	2.19	0.0420	0.0072	2.13	OE
KHA62D		0.0340	-0.0023	-0.67	0.0329	-0.0019	-0.58	CI
KLZB8H		0.0406	0.0043	1.23	0.0397	0.0049	1.46	XX
KNUJNJ		0.0304	-0.0060	-1.73	0.0283	-0.0065	-1.93	OE
KTVDU2		0.0417	0.0053	1.53	0.0397	0.0049	1.44	CI
LA664B		0.0360	-0.0004	-0.11	0.0359	0.0011	0.32	OE
LMMDAM		0.0360	-0.0004	-0.11	0.0343	-0.0005	-0.15	CI
LNA4P9		0.0407	0.0043	1.24	0.0389	0.0041	1.20	OE
LQB4YD		0.0351	-0.0013	-0.36	0.0351	0.0003	0.07	OE
LTBWEY		0.0348	-0.0016	-0.46	0.0354	0.0006	0.18	DR
M2EHP7		0.0377	0.0014	0.40	0.0356	0.0008	0.24	XX
MAKF49		0.0362	-0.0002	-0.05	0.0337	-0.0011	-0.33	CI
MCLAFD		0.0346	-0.0018	-0.52	0.0319	-0.0029	-0.86	CI
MM7HFT		0.0313	-0.0050	-1.45	0.0287	-0.0061	-1.83	OE
MNXFVL		0.0343	-0.0020	-0.59	0.0323	-0.0025	-0.74	CI
MR274M	X	0.0441	0.0078	2.24	0.0464	0.0116	3.45	OE
MRGPNK		0.0366	0.0003	0.08	0.0345	-0.0003	-0.10	OE
MWT9A8		0.0325	-0.0039	-1.11	0.0299	-0.0049	-1.47	OE
MYJJ3L		0.0311	-0.0053	-1.52	0.0299	-0.0049	-1.47	CI
N6QTFE		0.0403	0.0039	1.12	0.0379	0.0031	0.93	OE
N9P4CE		0.0320	-0.0044	-1.26	0.0333	-0.0015	-0.44	CO
NHUBQE		0.0350	-0.0014	-0.39	0.0343	-0.0005	-0.14	GD
NPHUBH		0.0340	-0.0024	-0.69	0.0334	-0.0014	-0.42	OE
NXRN9Q		0.0363	0.0000	-0.01	0.0347	-0.0001	-0.04	OE
PBCLQZ		0.0359	-0.0005	-0.14	0.0366	0.0018	0.54	OE
PLEDHK		0.0315	-0.0049	-1.41	0.0299	-0.0049	-1.47	CI
PPVMPW		0.0287	-0.0077	-2.22	0.0280	-0.0068	-2.03	XX
PRQE3G		0.0374	0.0010	0.30	0.0362	0.0014	0.42	OE
QDEKEH		0.0385	0.0021	0.61	0.0396	0.0048	1.41	OE
QLQMRW		0.0405	0.0042	1.20	0.0365	0.0017	0.51	OE
R86LK6		0.0418	0.0054	1.57	0.0413	0.0065	1.92	OE
RMTEWJ		0.0368	0.0004	0.12	0.0334	-0.0014	-0.41	OE
RPYFW3		0.0434	0.0071	2.03	0.0399	0.0051	1.51	OE
RVC34D	X	0.3483	0.3120	89.80	0.3397	0.3049	90.66	CI
RXQCQB		0.0380	0.0016	0.47	0.0370	0.0022	0.65	OE
T3EGRE		0.0363	0.0000	-0.01	0.0345	-0.0003	-0.09	OE
TDXVVG		0.0367	0.0004	0.11	0.0350	0.0002	0.05	CI
TUCGUJ		0.0376	0.0012	0.36	0.0369	0.0021	0.62	OE
TWDJM2		0.0370	0.0006	0.17	0.0364	0.0016	0.47	OE
U69UJH		0.0420	0.0056	1.62	0.0400	0.0052	1.54	OE
UENG2C	X	0.0478	0.0114	3.29	0.0470	0.0122	3.62	OE
UF4WVY		0.0374	0.0010	0.29	0.0333	-0.0015	-0.45	OE

WebCode	Data Flag	Sample L61 Lab Mean	Sample L61 Diff. from Grand Mean	Sample L61 CPV	Sample L62 Lab Mean	Sample L62 Diff. from Grand Mean	Sample L62 CPV	Method
UHQA23		0.0350	-0.0013	-0.38	0.0337	-0.0011	-0.32	CI
UQ7JVW		0.0343	-0.0020	-0.59	0.0350	0.0002	0.05	OE
UYYPFW		0.0340	-0.0023	-0.67	0.0323	-0.0025	-0.76	CI
UZUVR4		0.0343	-0.0020	-0.59	0.0337	-0.0011	-0.34	DR
V24NJ3		0.0374	0.0010	0.29	0.0351	0.0003	0.07	XX
V6ZTUG		0.0360	-0.0004	-0.11	0.0353	0.0005	0.15	XX
V7WWEW		0.0357	-0.0007	-0.19	0.0363	0.0015	0.45	OE
VDKEER		0.0406	0.0043	1.23	0.0370	0.0021	0.64	OE
VDQLXZ		0.0345	-0.0019	-0.54	0.0319	-0.0029	-0.88	CI
VKHV2Q		0.0358	-0.0006	-0.17	0.0331	-0.0017	-0.52	CI
W2WDU6		0.0344	-0.0020	-0.58	0.0314	-0.0034	-1.02	CI
W6C4XE		0.0367	0.0003	0.10	0.0343	-0.0005	-0.14	OE
WPLJPC		0.0310	-0.0054	-1.54	0.0310	-0.0038	-1.13	OE
WVFFE3		0.0407	0.0043	1.24	0.0403	0.0055	1.64	CO
XJETLR		0.0362	-0.0002	-0.06	0.0348	0.0000	-0.01	CI
XLJF94		0.0385	0.0021	0.60	0.0372	0.0024	0.72	OE
YBC3L9		0.0361	-0.0002	-0.07	0.0334	-0.0014	-0.43	OE
YL8DRU		0.0288	-0.0076	-2.18	0.0281	-0.0067	-2.01	CO
YQAEM6		0.0323	-0.0040	-1.16	0.0333	-0.0015	-0.44	OE
YYRZJF		0.0420	0.0056	1.62	0.0413	0.0065	1.94	OE
Z7U2Z2		0.0339	-0.0024	-0.70	0.0311	-0.0037	-1.12	OE
ZQP9D6		0.0423	0.0059	1.71	0.0406	0.0058	1.73	CO
ZRZBY4		0.0370	0.0006	0.18	0.0343	-0.0005	-0.14	OE

Summary Statistics

	Sample L61		Sample L62	
Grand Means	0.0364	Percent	0.0348	Percent
Stnd Dev Btwn Labs	0.0035	Percent	0.0034	Percent

Samples L61, L62 : AISI 4140, AISI 4140

Statistics based on 157 of 164 reporting participants

Key to Method Codes Reported by Participants

AE	Spectrometry - Atomic Emission (AES)	CI	Combustion / IR
CO	Combustion	DR	Spectrometry - Direct Reading OE (DROES)
GD	Spectrometry - Glow Discharge (GDS)	IC	Spectrometry - Inductively Coupled Plasma (ICP)
IR	IR (Absorption / Detection)	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 #173

4DZ6EP (X) - Data for sample L61 are low.

BLWEZ9 (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

CAAQ8T (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample L62.

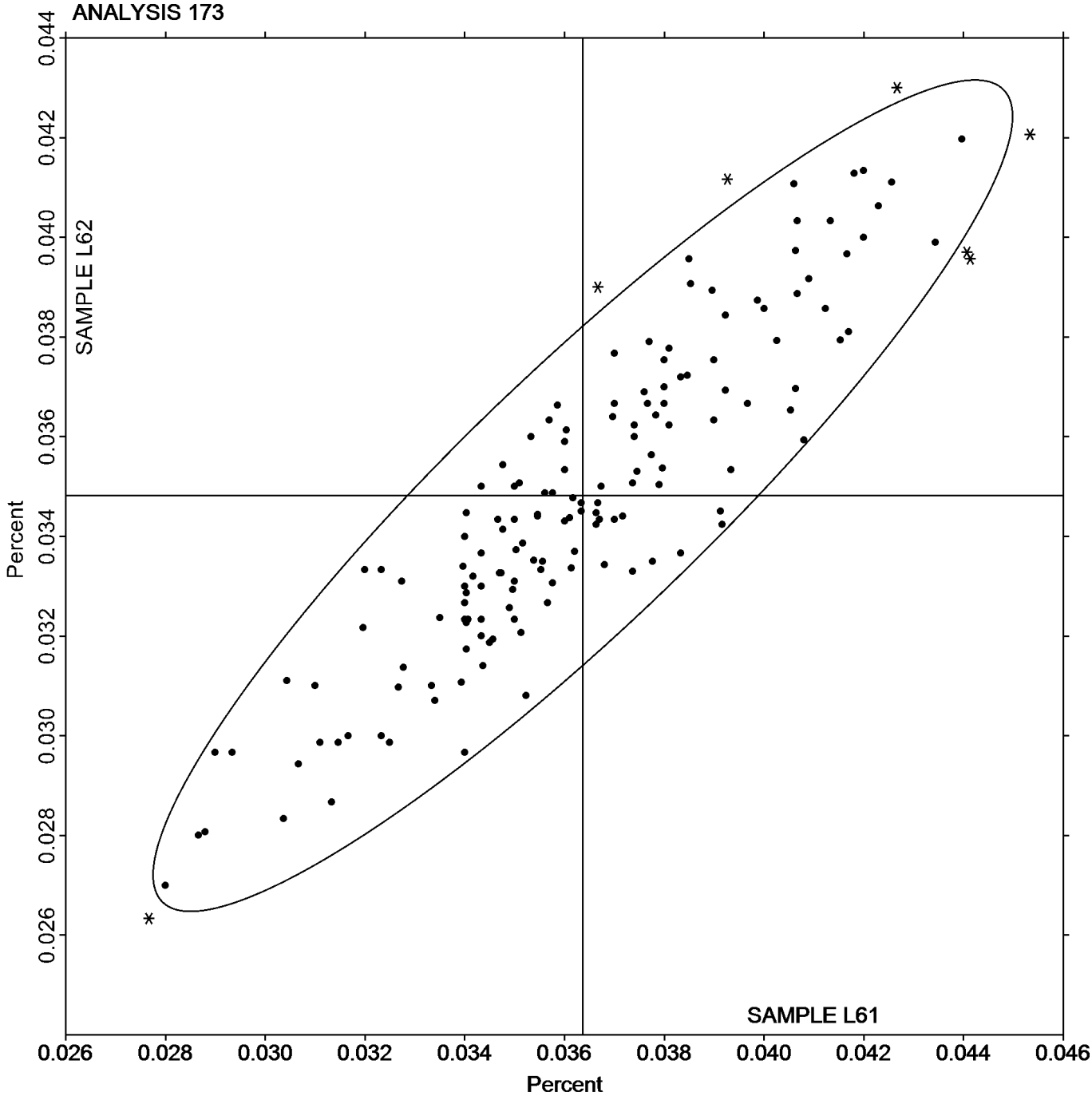
H3GBF3 (X) - Data for both samples are low. Possible Systematic Error.

MR274M (X) - Data for sample L62 are high. Inconsistent within the determinations of both samples.

RVC34D (X) - Extreme data.

UENG2C (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

SAMPLE L61	SAMPLE L62
0.0364 Percent	0.0348 Percent



		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
23F78F	X	0.2390	0.0148	3.18	0.2777	0.0142	2.52	OE
24URN6		0.2200	-0.0042	-0.90	0.2567	-0.0068	-1.21	GR
2AEGXZ		0.2244	0.0002	0.04	0.2644	0.0009	0.16	OE
2BPRYQ	X	0.2717	0.0475	10.20	0.3067	0.0432	7.67	WD
2CNZ29		0.2277	0.0035	0.75	0.2693	0.0059	1.04	XX
2H4CN3		0.2257	0.0015	0.32	0.2650	0.0015	0.27	OE
2JXZ8Y	X	0.2090	-0.0152	-3.26	0.2503	-0.0131	-2.33	GD
2MMRT9		0.2277	0.0035	0.75	0.2683	0.0049	0.87	OE
2NDJGT	X	0.2680	0.0438	9.41	0.2290	-0.0345	-6.12	DR
2NZEBM		0.2233	-0.0009	-0.18	0.2647	0.0012	0.21	OE
2UDW7B		0.2294	0.0052	1.11	0.2624	-0.0011	-0.19	IC
2VXVXL		0.2244	0.0002	0.04	0.2646	0.0011	0.20	OE
2XE3HV		0.2263	0.0021	0.46	0.2643	0.0009	0.16	OE
33EVNH		0.2283	0.0041	0.89	0.2657	0.0022	0.39	DR
34M4TW		0.2297	0.0055	1.18	0.2663	0.0029	0.51	OE
37GPP9		0.2167	-0.0075	-1.62	0.2547	-0.0088	-1.56	AE
3E8E69	X	0.1997	-0.0245	-5.26	0.2431	-0.0204	-3.61	OE
3P6Y7V		0.2310	0.0068	1.46	0.2703	0.0069	1.22	XX
3Y9L6Z		0.2200	-0.0042	-0.90	0.2583	-0.0051	-0.91	OE
468WTY		0.2234	-0.0008	-0.18	0.2595	-0.0040	-0.70	IC
46N9B4		0.2270	0.0028	0.60	0.2683	0.0049	0.87	IC
4BJLRZ		0.2180	-0.0062	-1.33	0.2567	-0.0068	-1.21	OE
4DZ6EP		0.2227	-0.0015	-0.33	0.2603	-0.0031	-0.55	OE
4KBHQ2		0.2226	-0.0016	-0.33	0.2623	-0.0011	-0.20	OE
4NTTRC		0.2277	0.0035	0.76	0.2672	0.0037	0.66	OE
4VQNBH		0.2223	-0.0019	-0.40	0.2617	-0.0018	-0.32	OE
69DZVR		0.2260	0.0018	0.39	0.2607	-0.0028	-0.50	OE
6MWTCC		0.2300	0.0058	1.25	0.2733	0.0099	1.75	OE
6WWU8X	*	0.2281	0.0039	0.83	0.2590	-0.0045	-0.79	OE
73X36J		0.2163	-0.0079	-1.69	0.2547	-0.0088	-1.56	OE
7HMTPD		0.2230	-0.0012	-0.26	0.2583	-0.0051	-0.91	OE
7MAP94		0.2200	-0.0042	-0.90	0.2567	-0.0068	-1.21	OE
7WULRB		0.2180	-0.0062	-1.33	0.2540	-0.0095	-1.68	OE
84KKK4		0.2253	0.0011	0.25	0.2630	-0.0005	-0.08	IC
89EJVT		0.2235	-0.0007	-0.15	0.2602	-0.0032	-0.57	OE
8GGVL3		0.2307	0.0065	1.39	0.2717	0.0082	1.46	OE
8N89VV		0.2174	-0.0068	-1.47	0.2544	-0.0091	-1.61	AE
8NAFDW		0.2250	0.0008	0.17	0.2617	-0.0018	-0.32	OE
8QQD42		0.2323	0.0081	1.75	0.2707	0.0072	1.28	OE
9832FU		0.2117	-0.0125	-2.69	0.2523	-0.0111	-1.98	IC
987V7E		0.2200	-0.0042	-0.90	0.2600	-0.0035	-0.61	OE
99ZWBN		0.2270	0.0028	0.60	0.2663	0.0029	0.51	OE
9DM6LB	*	0.2381	0.0139	2.99	0.2769	0.0135	2.39	GR
9GPA8W	X	0.2263	0.0021	0.46	0.2563	-0.0071	-1.26	OE
9KRGHE		0.2276	0.0034	0.73	0.2661	0.0027	0.47	OE
9N7M7V		0.2233	-0.0009	-0.18	0.2620	-0.0015	-0.26	OE
9Z3MQL		0.2207	-0.0035	-0.76	0.2600	-0.0035	-0.61	OE

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
9ZLNGV		0.2255	0.0013	0.27	0.2686	0.0052	0.92	OE
A2VHYL		0.2264	0.0022	0.47	0.2658	0.0023	0.42	OE
A3TVJT		0.2137	-0.0105	-2.26	0.2500	-0.0135	-2.39	OE
ACUJKX		0.2167	-0.0075	-1.62	0.2573	-0.0061	-1.09	GD
AEDM33		0.2280	0.0038	0.82	0.2677	0.0042	0.75	OE
AGU8GD		0.2250	0.0008	0.17	0.2627	-0.0008	-0.14	XX
APMF34		0.2298	0.0056	1.20	0.2697	0.0062	1.10	OE
AUYKFP		0.2190	-0.0052	-1.12	0.2580	-0.0055	-0.97	IC
B3LYLE		0.2260	0.0018	0.39	0.2627	-0.0008	-0.14	OE
B6CX2X		0.2203	-0.0039	-0.83	0.2600	-0.0035	-0.61	OE
B8PMWA	X	0.2180	-0.0062	-1.33	0.2685	0.0050	0.90	IC
B8XQ3T		0.2230	-0.0012	-0.26	0.2620	-0.0015	-0.26	OE
BE2UTR		0.2284	0.0042	0.90	0.2657	0.0022	0.40	OE
BLWEZ9		0.2203	-0.0039	-0.83	0.2560	-0.0075	-1.32	OE
BMDUM3		0.2250	0.0008	0.17	0.2631	-0.0004	-0.07	GD
BQ6VZV		0.2117	-0.0125	-2.69	0.2500	-0.0135	-2.39	IC
BT9RJY		0.2317	0.0075	1.61	0.2703	0.0069	1.22	OE
C72A86		0.2230	-0.0012	-0.26	0.2666	0.0032	0.56	OE
CAAQ8T		0.2268	0.0026	0.57	0.2613	-0.0022	-0.38	OE
CF2ZGQ		0.2123	-0.0119	-2.55	0.2503	-0.0131	-2.33	IC
CNY7AD		0.2260	0.0018	0.39	0.2607	-0.0028	-0.50	IC
CRJ6UM		0.2163	-0.0079	-1.69	0.2557	-0.0078	-1.38	OE
D2MGNV		0.2293	0.0051	1.09	0.2728	0.0093	1.66	AE
D4NYUX		0.2130	-0.0112	-2.40	0.2503	-0.0131	-2.33	GD
DE43LP		0.2227	-0.0015	-0.33	0.2620	-0.0015	-0.26	IC
DFLDYG		0.2212	-0.0030	-0.65	0.2556	-0.0079	-1.40	IC
DMY8FQ		0.2207	-0.0035	-0.76	0.2590	-0.0045	-0.79	IC
DTNKGE		0.2256	0.0014	0.30	0.2633	-0.0002	-0.03	OE
DXGMHT		0.2170	-0.0072	-1.54	0.2520	-0.0115	-2.03	IR
DZ2G48		0.2243	0.0001	0.03	0.2633	-0.0001	-0.02	GD
ET3FD7		0.2270	0.0028	0.60	0.2630	-0.0005	-0.08	OE
F6AGTW		0.2273	0.0031	0.67	0.2648	0.0013	0.24	OE
F8F43U		0.2280	0.0038	0.82	0.2673	0.0039	0.69	OE
FBKH6R		0.2170	-0.0072	-1.54	0.2543	-0.0091	-1.62	OE
FGETFW		0.2223	-0.0019	-0.40	0.2613	-0.0021	-0.38	OE
FJVC7T		0.2197	-0.0045	-0.96	0.2579	-0.0056	-0.99	OE
FK6J6E		0.2233	-0.0009	-0.18	0.2673	0.0039	0.69	OE
FKTNZZ	*	0.2300	0.0058	1.25	0.2763	0.0129	2.29	GD
FWHJ29		0.2213	-0.0029	-0.61	0.2583	-0.0051	-0.91	OE
FXNTQD	X	0.2000	-0.0242	-5.20	0.2500	-0.0135	-2.39	GD
GMMH4N		0.2230	-0.0012	-0.26	0.2660	0.0025	0.45	OE
GNWM47		0.2187	-0.0055	-1.19	0.2590	-0.0045	-0.79	GD
GTVRJX		0.2160	-0.0082	-1.76	0.2520	-0.0115	-2.03	OE
GUAU73		0.2294	0.0052	1.11	0.2624	-0.0011	-0.19	GR
GY3YXL		0.2223	-0.0019	-0.40	0.2617	-0.0018	-0.31	OE
H2JA9Q		0.2230	-0.0012	-0.26	0.2620	-0.0015	-0.26	OE
H2PRJN		0.2253	0.0011	0.25	0.2630	-0.0005	-0.08	XX

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
H3GBF3	X	0.0810	-0.1432	-30.77	0.2303	-0.0331	-5.88	OE
HHNP26	X	0.1903	-0.0339	-7.27	0.2247	-0.0388	-6.89	IC
HJFNF4		0.2197	-0.0045	-0.97	0.2613	-0.0021	-0.38	OE
HNZZMR		0.2260	0.0018	0.39	0.2667	0.0032	0.57	OE
HQG2EL		0.2205	-0.0037	-0.80	0.2584	-0.0051	-0.90	IC
JBA6Q7		0.2300	0.0058	1.25	0.2727	0.0092	1.64	IC
JD2F7K	*	0.2170	-0.0072	-1.54	0.2487	-0.0148	-2.63	WD
K9WTNV		0.2243	0.0001	0.03	0.2627	-0.0008	-0.14	XX
KH9E4V		0.2293	0.0051	1.10	0.2740	0.0105	1.87	OE
KHA62D		0.2257	0.0015	0.33	0.2672	0.0037	0.66	OE
KLZB8H		0.2223	-0.0019	-0.40	0.2647	0.0012	0.21	XX
KNUJNJ	X	0.2410	0.0168	3.61	0.2820	0.0185	3.29	OE
KTVDU2		0.2207	-0.0035	-0.76	0.2603	-0.0031	-0.55	IC
LA664B		0.2244	0.0002	0.05	0.2679	0.0045	0.80	OE
LMMDAM		0.2257	0.0015	0.32	0.2717	0.0082	1.46	OE
LNA4P9		0.2257	0.0015	0.32	0.2613	-0.0021	-0.38	OE
LQB4YD		0.2307	0.0065	1.39	0.2677	0.0042	0.75	OE
LTBWEY		0.2213	-0.0029	-0.61	0.2583	-0.0051	-0.91	DR
M2EHP7	X	0.2435	0.0193	4.15	0.2843	0.0208	3.70	XX
MAKF49		0.2243	0.0001	0.03	0.2677	0.0042	0.75	IC
MCLAFD		0.2254	0.0012	0.27	0.2641	0.0006	0.11	OE
MM7HFT		0.2210	-0.0032	-0.69	0.2623	-0.0011	-0.20	OE
MR274M		0.2323	0.0081	1.74	0.2761	0.0127	2.25	OE
MRGPNK		0.2243	0.0001	0.02	0.2640	0.0006	0.10	OE
MWT9A8	X	0.0225	-0.2017	-43.34	0.2627	-0.0008	-0.14	OE
MYJJ3L		0.2297	0.0055	1.18	0.2715	0.0080	1.43	IC
N6QTFE		0.2274	0.0032	0.68	0.2645	0.0011	0.19	OE
N9P4CE		0.2280	0.0038	0.82	0.2667	0.0032	0.57	OE
NBUFRA	X	0.2640	0.0398	8.55	0.2237	-0.0398	-7.07	XX
NHUBQE		0.2200	-0.0042	-0.90	0.2600	-0.0035	-0.61	GD
NPHUBH		0.2259	0.0017	0.37	0.2661	0.0026	0.47	OE
NXRN9Q		0.2243	0.0001	0.03	0.2640	0.0005	0.10	OE
PBCLQZ	*	0.2340	0.0098	2.10	0.2603	-0.0032	-0.57	OE
PLEDHK		0.2235	-0.0007	-0.15	0.2668	0.0033	0.59	OE
PPVMPW		0.2283	0.0041	0.89	0.2697	0.0062	1.10	XX
PRQE3G		0.2267	0.0025	0.53	0.2640	0.0005	0.10	OE
QDEKEH		0.2224	-0.0018	-0.39	0.2606	-0.0028	-0.50	OE
QLQMRW		0.2217	-0.0025	-0.54	0.2620	-0.0015	-0.26	OE
R86LK6		0.2259	0.0017	0.36	0.2667	0.0033	0.58	OE
RB2TPU		0.2213	-0.0029	-0.61	0.2603	-0.0031	-0.55	XX
RMTEWJ		0.2296	0.0054	1.17	0.2686	0.0052	0.92	OE
RPYFW3		0.2303	0.0061	1.32	0.2673	0.0039	0.69	OE
RVC34D		0.2190	-0.0052	-1.12	0.2626	-0.0009	-0.16	OE
RXQCQB		0.2263	0.0021	0.46	0.2670	0.0035	0.63	OE
T3EGRE		0.2237	-0.0005	-0.10	0.2643	0.0009	0.16	OE
TDXVVG		0.2250	0.0008	0.17	0.2690	0.0055	0.98	OE
TUCGUJ		0.2222	-0.0020	-0.42	0.2610	-0.0025	-0.44	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 174

Carbon & Low Alloy Steel, Element #5
SILICON (Si)

WebCode	Data Flag	Sample L61 Lab Mean	Sample L61 Diff. from Grand Mean	Sample L61 CPV	Sample L62 Lab Mean	Sample L62 Diff. from Grand Mean	Sample L62 CPV	Method
TWDJM2		0.2226	-0.0016	-0.33	0.2642	0.0007	0.13	OE
U69UJH		0.2260	0.0018	0.39	0.2633	-0.0001	-0.02	OE
UENG2C		0.2273	0.0031	0.67	0.2648	0.0014	0.24	OE
UF4WVY		0.2260	0.0018	0.39	0.2650	0.0015	0.27	OE
UHQA23		0.2240	-0.0002	-0.04	0.2617	-0.0018	-0.32	WD
UQ7JVW		0.2227	-0.0015	-0.33	0.2623	-0.0011	-0.20	OE
UYYPFW		0.2283	0.0041	0.89	0.2723	0.0089	1.58	AE
UZUVR4		0.2280	0.0038	0.82	0.2690	0.0055	0.98	DR
V24NJ3		0.2256	0.0014	0.30	0.2654	0.0020	0.35	XX
V6ZTUG		0.2340	0.0098	2.11	0.2765	0.0130	2.32	OE
V7WWEW		0.2215	-0.0027	-0.57	0.2658	0.0023	0.42	OE
VDKEER		0.2212	-0.0030	-0.64	0.2617	-0.0018	-0.32	OE
VDQLXZ	*	0.2177	-0.0065	-1.40	0.2647	0.0012	0.21	WD
VKHV2Q		0.2297	0.0055	1.18	0.2680	0.0045	0.81	OE
W2WDU6		0.2220	-0.0022	-0.48	0.2613	-0.0021	-0.38	IC
W6C4XE		0.2308	0.0066	1.42	0.2708	0.0073	1.30	OE
WPLJPC		0.2200	-0.0042	-0.90	0.2600	-0.0035	-0.61	OE
WVFFE3		0.2243	0.0001	0.03	0.2623	-0.0011	-0.20	OE
XLJF94		0.2229	-0.0013	-0.28	0.2617	-0.0018	-0.31	OE
YBC3L9		0.2232	-0.0010	-0.21	0.2645	0.0010	0.18	OE
YL8DRU	X	0.2093	-0.0149	-3.19	0.2507	-0.0128	-2.27	OE
YQAEM6		0.2257	0.0015	0.32	0.2690	0.0055	0.98	OE
YYRZJF		0.2240	-0.0002	-0.04	0.2640	0.0005	0.10	OE
Z7U2Z2	*	0.2370	0.0128	2.75	0.2760	0.0125	2.23	OE
ZQP9D6		0.2217	-0.0025	-0.54	0.2590	-0.0045	-0.79	OE
ZRZBY4		0.2207	-0.0035	-0.76	0.2577	-0.0058	-1.03	OE

Summary Statistics

	Sample L61		Sample L62	
Grand Means	0.2242	Percent	0.2635	Percent
Stnd Dev Btwn Labs	0.0047	Percent	0.0056	Percent

Samples L61, L62 : AISI 4140, AISI 4140

Statistics based on 148 of 167 reporting participants

Key to Method Codes Reported by Participants

AE	Spectrometry - Atomic Emission (AES)	DR	Spectrometry - Direct Reading OE (DROES)
GD	Spectrometry - Glow Discharge (GDS)	GR	Gravimetry
IC	Spectrometry - Inductively Coupled Plasma (ICP)	IR	IR (Absorption / Detection)
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 #174

23F78F (X) - Data for sample L61 are high.

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

2JXZ8Y (X) - Data for sample L61 are low.

2NDJGT (X) - Data for sample L61 are high and data for sample L62 are low.

3E8E69 (X) - Data for both samples are low. Inconsistent within the determinations of sample L61.

9GPA8W (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L62.

B8PMWA (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L61.

FXNTQD (X) - Data for sample L61 are low.

H3GBF3 (X) - Data for both samples are low. Inconsistent within the determinations of both samples.

HHNP26 (X) - Data for both samples are low.

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

M2EHP7 (X) - Data for both samples are high.

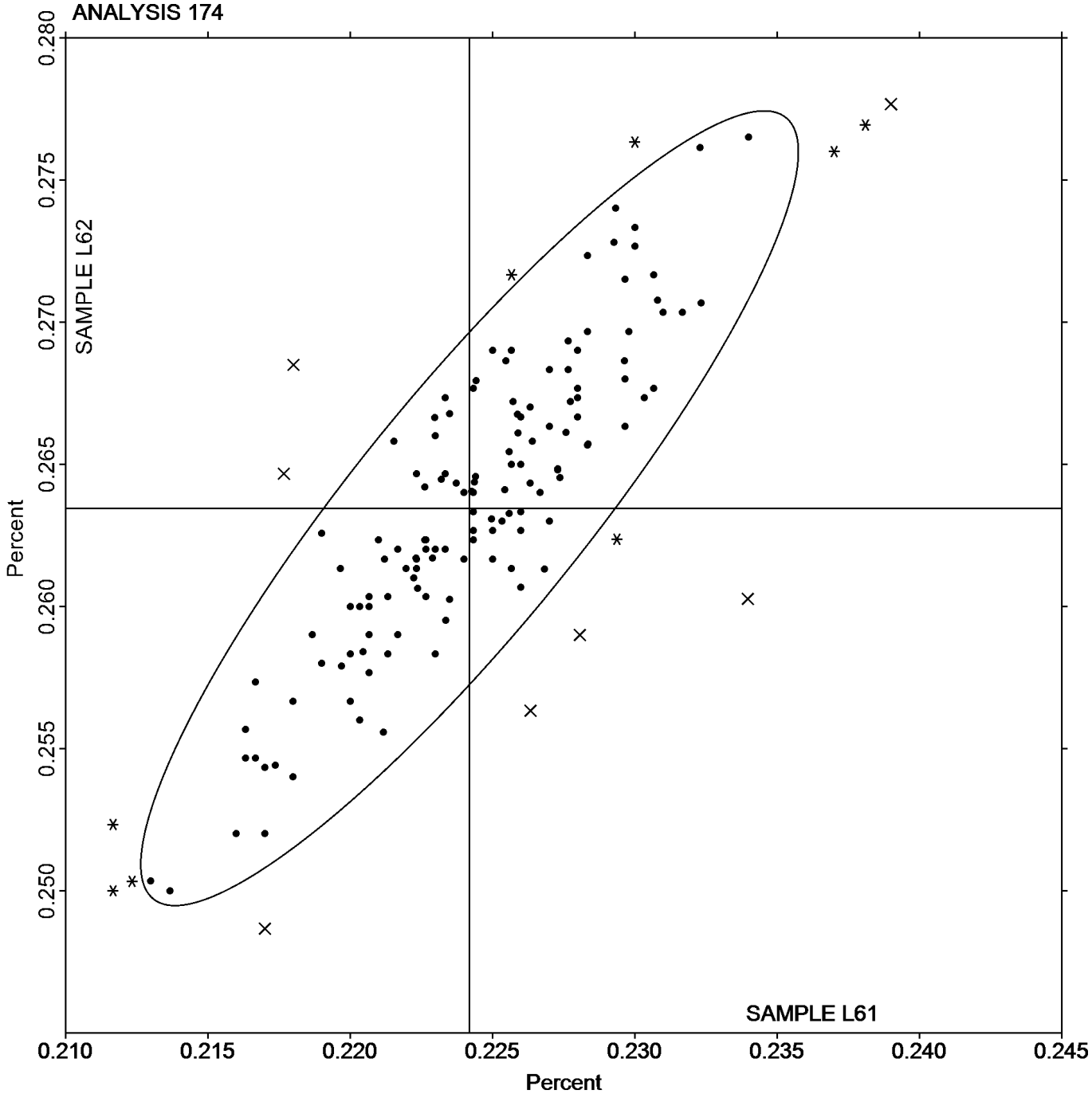
MWT9A8 (X) - Data for sample L61 are extreme.

NBUFRA (X) - Data for sample L61 are high and data for sample L62 are low.

YL8DRU (X) - Data for sample L61 are low.

SAMPLE L61
0.2242 Percent

SAMPLE L62
0.2635 Percent



		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
23F78F		0.1810	0.0038	0.82	0.1797	0.0030	0.66	OE
24URN6		0.1790	0.0018	0.38	0.1757	-0.0010	-0.21	IC
2AEGXZ		0.1785	0.0013	0.28	0.1782	0.0016	0.35	OE
2BPRYQ		0.1691	-0.0081	-1.77	0.1721	-0.0046	-0.99	IC
2CNZ29		0.1857	0.0084	1.84	0.1867	0.0100	2.18	XX
2JXZ8Y	X	0.2037	0.0264	5.77	0.2013	0.0247	5.36	GD
2MMRT9		0.1697	-0.0076	-1.66	0.1713	-0.0053	-1.15	OE
2NDJGT		0.1833	0.0061	1.33	0.1847	0.0080	1.74	DR
2NZEBM		0.1763	-0.0009	-0.20	0.1783	0.0017	0.37	OE
2UDW7B		0.1750	-0.0022	-0.48	0.1742	-0.0024	-0.52	IC
2VXVXL		0.1852	0.0080	1.74	0.1829	0.0063	1.36	OE
2XE3HV		0.1697	-0.0076	-1.66	0.1717	-0.0050	-1.08	OE
33EVNH	X	0.1920	0.0148	3.22	0.1943	0.0177	3.84	DR
34M4TW		0.1747	-0.0026	-0.56	0.1750	-0.0016	-0.36	OE
37GPP9		0.1750	-0.0022	-0.49	0.1743	-0.0023	-0.50	AE
3E8E69	X	0.1728	-0.0045	-0.98	0.1799	0.0032	0.70	OE
3P6Y7V		0.1823	0.0051	1.11	0.1807	0.0040	0.87	XX
3Y9L6Z		0.1657	-0.0116	-2.53	0.1647	-0.0120	-2.60	OE
468WTY		0.1780	0.0008	0.17	0.1767	0.0000	0.01	XX
46N9B4		0.1747	-0.0026	-0.56	0.1747	-0.0020	-0.43	IC
4BJLRZ		0.1890	0.0118	2.57	0.1854	0.0088	1.90	OE
4DZ6EP	X	0.1610	-0.0162	-3.55	0.1617	-0.0150	-3.25	OE
4KBHQ2		0.1735	-0.0038	-0.83	0.1748	-0.0018	-0.40	OE
4NTTRC		0.1793	0.0020	0.44	0.1792	0.0025	0.55	OE
4VQNBH		0.1733	-0.0039	-0.85	0.1753	-0.0013	-0.28	OE
69DZVR		0.1887	0.0114	2.50	0.1857	0.0090	1.96	OE
6MWTCC		0.1733	-0.0039	-0.85	0.1700	-0.0066	-1.44	OE
6WWU8X		0.1791	0.0018	0.40	0.1806	0.0039	0.85	OE
73X36J		0.1670	-0.0102	-2.24	0.1680	-0.0086	-1.87	OE
7HMTPD		0.1717	-0.0056	-1.22	0.1700	-0.0066	-1.44	OE
7MAP94		0.1793	0.0021	0.46	0.1767	0.0000	0.01	OE
7WULRB	*	0.1913	0.0141	3.08	0.1897	0.0130	2.83	OE
84KKK4		0.1750	-0.0022	-0.49	0.1730	-0.0036	-0.79	IC
89EJVT		0.1797	0.0024	0.53	0.1788	0.0022	0.48	OE
8GGVL3		0.1850	0.0078	1.69	0.1860	0.0094	2.03	OE
8N89VV		0.1705	-0.0067	-1.47	0.1693	-0.0073	-1.59	AE
8NAFDW		0.1780	0.0008	0.17	0.1780	0.0014	0.30	OE
8QQD42		0.1760	-0.0012	-0.27	0.1730	-0.0036	-0.79	OE
9832FU		0.1817	0.0044	0.97	0.1817	0.0050	1.09	IC
987V7E		0.1800	0.0028	0.60	0.1800	0.0034	0.73	OE
99ZWBN		0.1720	-0.0052	-1.15	0.1713	-0.0053	-1.15	OE
9DM6LB		0.1767	-0.0005	-0.12	0.1759	-0.0007	-0.15	IC
9GPA8W		0.1727	-0.0046	-1.00	0.1723	-0.0043	-0.93	OE
9KRGHE		0.1766	-0.0006	-0.13	0.1753	-0.0014	-0.30	OE
9N7M7V		0.1853	0.0081	1.77	0.1847	0.0080	1.74	OE
9Z3MQL		0.1797	0.0024	0.53	0.1807	0.0040	0.87	OE
9ZLNGV		0.1789	0.0016	0.35	0.1778	0.0012	0.25	OE

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
A2VHYL		0.1779	0.0007	0.14	0.1758	-0.0008	-0.17	OE
A3TVJT		0.1743	-0.0029	-0.64	0.1723	-0.0043	-0.93	OE
ACUJKX		0.1797	0.0024	0.53	0.1780	0.0014	0.30	GD
AEDM33		0.1787	0.0014	0.31	0.1770	0.0004	0.08	OE
AGU8GD		0.1747	-0.0026	-0.56	0.1740	-0.0026	-0.57	XX
APMF34		0.1771	-0.0001	-0.03	0.1715	-0.0052	-1.12	OE
AUYKFP		0.1730	-0.0042	-0.93	0.1713	-0.0053	-1.15	IC
B3LYLE		0.1803	0.0031	0.67	0.1800	0.0034	0.73	OE
B6CX2X		0.1790	0.0018	0.38	0.1790	0.0024	0.51	OE
B8PMWA	X	0.1760	-0.0012	-0.27	0.1855	0.0089	1.92	IC
B8XQ3T		0.1853	0.0081	1.77	0.1863	0.0097	2.10	OE
BE2UTR		0.1772	-0.0001	-0.02	0.1748	-0.0018	-0.40	OE
BLWEZ9		0.1787	0.0014	0.31	0.1760	-0.0006	-0.14	OE
BMDUM3		0.1779	0.0007	0.15	0.1763	-0.0004	-0.08	GD
BQ6VZV		0.1740	-0.0032	-0.71	0.1743	-0.0023	-0.50	IC
BT9RJY		0.1740	-0.0032	-0.71	0.1750	-0.0016	-0.36	OE
C72A86		0.1828	0.0056	1.22	0.1812	0.0045	0.98	OE
CAAQ8T	X	0.2101	0.0328	7.17	0.2076	0.0309	6.71	OE
CF2ZGQ		0.1810	0.0038	0.82	0.1807	0.0040	0.87	IC
CNY7AD		0.1790	0.0018	0.38	0.1787	0.0020	0.44	IC
CRJ6UM		0.1740	-0.0032	-0.71	0.1747	-0.0020	-0.43	OE
D2MGNV		0.1758	-0.0014	-0.31	0.1761	-0.0005	-0.12	AE
D4NYUX		0.1777	0.0004	0.09	0.1753	-0.0013	-0.28	GD
DE43LP		0.1787	0.0014	0.31	0.1777	0.0010	0.22	IC
DFLDYG	X	0.1579	-0.0194	-4.23	0.1562	-0.0205	-4.44	IC
DMY8FQ		0.1760	-0.0012	-0.27	0.1760	-0.0006	-0.14	IC
DTNKGE		0.1758	-0.0014	-0.32	0.1726	-0.0040	-0.87	OE
DXGMHT		0.1740	-0.0032	-0.71	0.1730	-0.0036	-0.79	IC
DZ2G48		0.1703	-0.0069	-1.51	0.1733	-0.0033	-0.72	GD
ET3FD7		0.1773	0.0001	0.02	0.1723	-0.0043	-0.93	OE
F6AGTW		0.1775	0.0003	0.06	0.1746	-0.0021	-0.45	OE
F8F43U		0.1820	0.0048	1.04	0.1810	0.0044	0.95	OE
FBKH6R		0.1677	-0.0096	-2.09	0.1670	-0.0096	-2.09	OE
FGETFW		0.1723	-0.0049	-1.08	0.1701	-0.0065	-1.41	OE
FJVC7T		0.1728	-0.0044	-0.97	0.1731	-0.0035	-0.76	OE
FK6J6E		0.1797	0.0024	0.53	0.1833	0.0067	1.45	OE
FKTNZZ		0.1777	0.0004	0.09	0.1783	0.0017	0.37	GD
FWHJ29		0.1733	-0.0039	-0.85	0.1720	-0.0046	-1.01	OE
FXNTQD	X	0.1500	-0.0272	-5.95	0.1400	-0.0366	-7.95	GD
GMMH4N		0.1747	-0.0026	-0.56	0.1743	-0.0023	-0.50	OE
GNWM47	*	0.1753	-0.0019	-0.42	0.1683	-0.0083	-1.80	GD
GTVRJX		0.1870	0.0098	2.13	0.1840	0.0074	1.60	OE
GUAU73		0.1750	-0.0022	-0.48	0.1742	-0.0024	-0.52	IC
GY3YXL		0.1733	-0.0040	-0.87	0.1727	-0.0040	-0.86	OE
H2JA9Q		0.1790	0.0018	0.38	0.1810	0.0044	0.95	OE
H2PRJN		0.1750	-0.0022	-0.49	0.1730	-0.0036	-0.79	XX
H3GBF3	X	0.1573	-0.0199	-4.35	0.1570	-0.0196	-4.26	OE

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
HHNP26		0.1717	-0.0056	-1.22	0.1700	-0.0066	-1.44	IC
HJFNF4	*	0.1663	-0.0109	-2.38	0.1703	-0.0063	-1.37	OE
HNZZMR		0.1780	0.0008	0.17	0.1737	-0.0030	-0.64	OE
HQG2EL		0.1775	0.0002	0.05	0.1761	-0.0005	-0.12	IC
JBA6Q7	X	0.1770	-0.0002	-0.05	0.1907	0.0140	3.05	IC
JD2F7K		0.1707	-0.0066	-1.44	0.1670	-0.0096	-2.09	WD
K9WTNV	X	0.1933	0.0161	3.51	0.1933	0.0167	3.62	XX
KH9E4V		0.1799	0.0027	0.59	0.1810	0.0043	0.94	OE
KHA62D		0.1807	0.0035	0.75	0.1803	0.0037	0.80	OE
KLZB8H		0.1793	0.0021	0.46	0.1783	0.0017	0.37	XX
KNUJNJ		0.1740	-0.0032	-0.71	0.1723	-0.0043	-0.93	OE
KTVDU2		0.1763	-0.0009	-0.20	0.1773	0.0007	0.15	IC
LA664B		0.1762	-0.0010	-0.22	0.1775	0.0009	0.19	OE
LMMDAM		0.1737	-0.0036	-0.78	0.1767	0.0000	0.01	OE
LNA4P9		0.1800	0.0028	0.60	0.1760	-0.0006	-0.14	OE
LQB4YD		0.1697	-0.0076	-1.66	0.1687	-0.0080	-1.73	OE
LTBWEY		0.1747	-0.0026	-0.56	0.1753	-0.0013	-0.28	DR
M2EHP7		0.1828	0.0056	1.22	0.1802	0.0036	0.78	XX
MAKF49		0.1877	0.0104	2.28	0.1863	0.0097	2.10	IC
MCLAFD	*	0.1795	0.0022	0.49	0.1675	-0.0091	-1.98	OE
MM7HFT		0.1827	0.0054	1.18	0.1823	0.0057	1.24	OE
MR274M		0.1847	0.0074	1.62	0.1854	0.0088	1.90	OE
MRGPNK		0.1793	0.0020	0.44	0.1793	0.0027	0.58	OE
MWT9A8		0.1800	0.0028	0.60	0.1803	0.0037	0.80	OE
MYJJ3L		0.1758	-0.0014	-0.32	0.1783	0.0016	0.35	IC
N6QTFE		0.1744	-0.0028	-0.61	0.1737	-0.0030	-0.64	OE
N9P4CE		0.1757	-0.0016	-0.34	0.1760	-0.0006	-0.14	OE
NBUFRA		0.1727	-0.0046	-1.00	0.1750	-0.0016	-0.36	XX
NHUBQE		0.1800	0.0028	0.60	0.1800	0.0034	0.73	GD
NPHUBH		0.1831	0.0059	1.28	0.1788	0.0021	0.46	OE
NXRN9Q		0.1793	0.0021	0.46	0.1793	0.0027	0.59	OE
PBCLQZ		0.1736	-0.0036	-0.80	0.1751	-0.0016	-0.34	OE
PLEDHK		0.1729	-0.0044	-0.96	0.1743	-0.0023	-0.51	OE
PPVMPW		0.1857	0.0084	1.84	0.1850	0.0084	1.82	XX
PRQE3G		0.1770	-0.0002	-0.05	0.1760	-0.0006	-0.14	OE
QDEKEH	X	0.1606	-0.0167	-3.64	0.1595	-0.0171	-3.71	OE
QLQMRW		0.1747	-0.0026	-0.56	0.1743	-0.0023	-0.50	OE
R86LK6		0.1772	-0.0001	-0.02	0.1777	0.0011	0.23	OE
RB2TPU		0.1730	-0.0042	-0.93	0.1740	-0.0026	-0.57	XX
RMTEWJ		0.1807	0.0035	0.76	0.1796	0.0030	0.65	OE
RPYFW3	X	0.2113	0.0341	7.45	0.2083	0.0317	6.88	OE
RVC34D		0.1752	-0.0021	-0.45	0.1736	-0.0030	-0.65	OE
RXQCQB		0.1790	0.0018	0.38	0.1790	0.0024	0.51	OE
T3EGRE		0.1793	0.0021	0.46	0.1783	0.0017	0.36	OE
TDXVVG		0.1743	-0.0029	-0.64	0.1763	-0.0003	-0.07	OE
TUCGUJ		0.1782	0.0009	0.20	0.1788	0.0021	0.46	OE
TWDJM2		0.1763	-0.0009	-0.20	0.1761	-0.0005	-0.12	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 175

Carbon & Low Alloy Steel, Element #6
MOLYBDENUM (Mo)

Cycle 127
3rd Qtr 2019

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
U69UJH		0.1803	0.0031	0.67	0.1783	0.0017	0.37	OE
UENG2C	X	0.2094	0.0322	7.03	0.2081	0.0314	6.82	OE
UF4WVY		0.1677	-0.0096	-2.09	0.1663	-0.0103	-2.24	OE
UHQA23		0.1769	-0.0003	-0.08	0.1750	-0.0016	-0.36	WD
UQ7JVW		0.1737	-0.0036	-0.78	0.1747	-0.0020	-0.43	OE
UYYPFW		0.1764	-0.0009	-0.19	0.1784	0.0017	0.38	AE
UZUVR4		0.1837	0.0064	1.40	0.1850	0.0084	1.82	DR
V24NJ3		0.1785	0.0013	0.28	0.1778	0.0011	0.25	XX
V6ZTUG		0.1815	0.0043	0.93	0.1815	0.0049	1.06	OE
V7WWEW		0.1777	0.0004	0.09	0.1796	0.0030	0.65	OE
VDKEER		0.1730	-0.0043	-0.93	0.1726	-0.0040	-0.88	OE
VDQLXZ		0.1720	-0.0052	-1.15	0.1700	-0.0066	-1.44	WD
VKHV2Q		0.1757	-0.0016	-0.34	0.1760	-0.0006	-0.14	OE
W2WDU6		0.1768	-0.0004	-0.09	0.1773	0.0007	0.15	IC
W6C4XE		0.1754	-0.0018	-0.40	0.1752	-0.0014	-0.31	OE
WPLJPC	X	0.1733	-0.0039	-0.85	0.1800	0.0034	0.73	OE
WVFFE3		0.1779	0.0006	0.14	0.1772	0.0006	0.13	OE
XLJF94		0.1793	0.0021	0.45	0.1827	0.0060	1.31	OE
YBC3L9		0.1792	0.0019	0.42	0.1780	0.0013	0.29	OE
YL8DRU		0.1753	-0.0019	-0.42	0.1730	-0.0036	-0.79	OE
YQAEM6		0.1793	0.0021	0.46	0.1787	0.0020	0.44	OE
YYRZJF		0.1827	0.0054	1.18	0.1793	0.0027	0.59	OE
Z7U2Z2		0.1700	-0.0072	-1.58	0.1690	-0.0076	-1.66	OE
ZQP9D6	*	0.1742	-0.0030	-0.66	0.1695	-0.0072	-1.56	OE
ZRZBY4		0.1803	0.0031	0.67	0.1773	0.0007	0.15	OE

Summary Statistics

	Sample L61		Sample L62	
Grand Means	0.1772	Percent	0.1766	Percent
Stnd Dev Btwn Labs	0.0046	Percent	0.0046	Percent

Samples L61, L62 : AISI 4140, AISI 4140

Statistics based on 148 of 166 reporting participants

Key to Method Codes Reported by Participants

AE	Spectrometry - Atomic Emission (AES)	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 #175

2JXZ8Y (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample L62.

33EVNH (X) - Data for both samples are high. Possible Systematic Error.

3E8E69 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L62.

4DZ6EP (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample L61.

B8PMWA (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L61.

CAAQ8T (X) - Data for both samples are high. Possible Systematic Error.

DFLDYG (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample L62.

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

H3GBF3 (X) - Data for both samples are low. Possible Systematic Error.

JBA6Q7 (X) - Data for sample L62 are high. Inconsistent within the determinations of both samples.

K9WTNV (X) - Data for both samples are high. Possible Systematic Error.

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

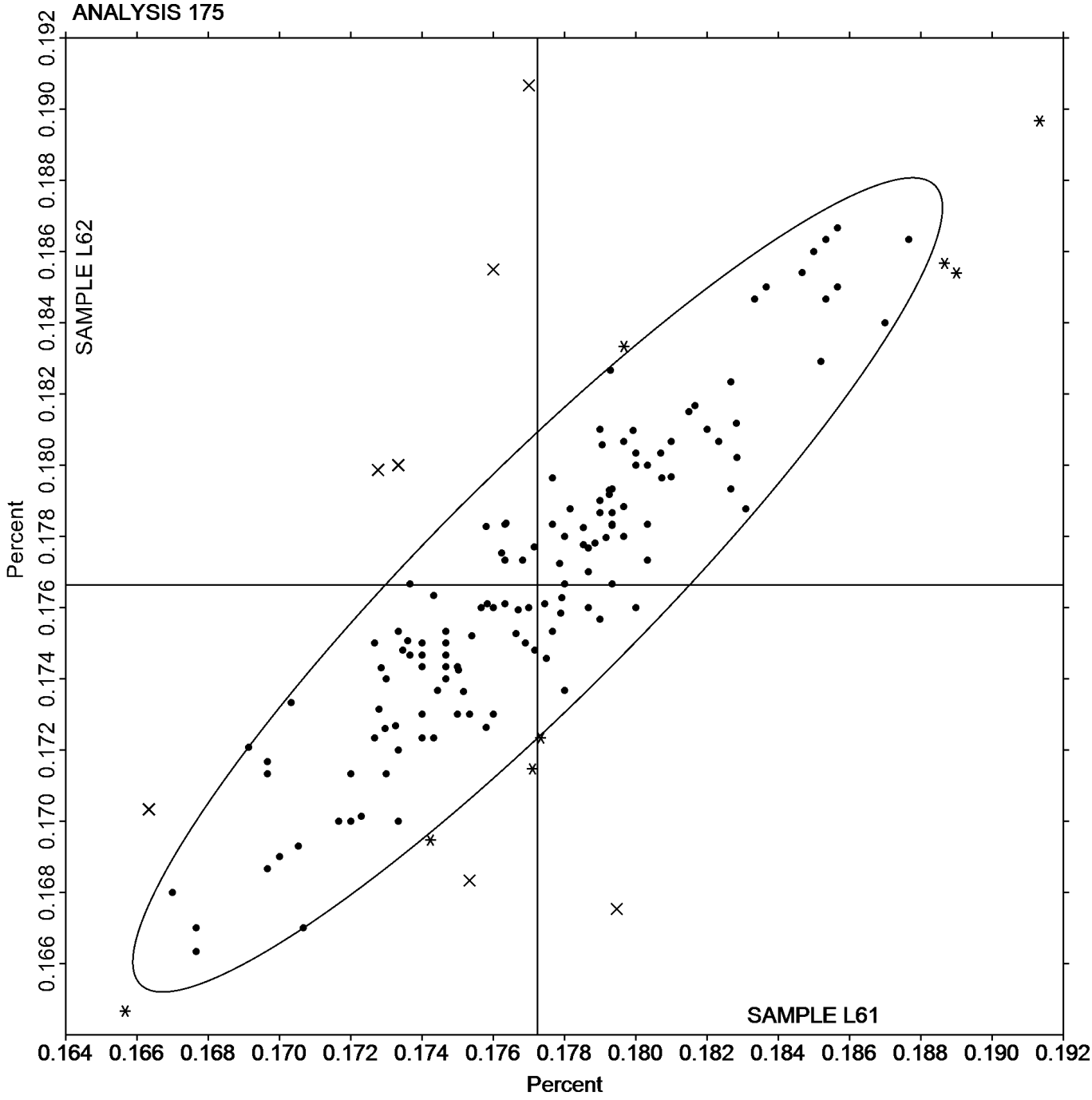
RPYFW3 (X) - Data for both samples are high. Possible Systematic Error.

UENG2C (X) - Data for both samples are high. Possible Systematic Error.

WPLJPC (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L61.

SAMPLE L61
0.1772 Percent

SAMPLE L62
0.1766 Percent



		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
23F78F	*	0.0870	-0.0075	-2.59	0.0840	-0.0082	-2.79	OE
24URN6		0.0921	-0.0025	-0.84	0.0895	-0.0028	-0.93	IC
2AEGXZ		0.0973	0.0028	0.96	0.0949	0.0027	0.91	OE
2BPRYQ		0.0904	-0.0041	-1.41	0.0874	-0.0048	-1.62	WD
2CNZ29		0.0880	-0.0065	-2.25	0.0873	-0.0049	-1.66	XX
2JXZ8Y		0.1010	0.0065	2.23	0.0977	0.0054	1.84	GD
2MMRT9		0.0953	0.0008	0.28	0.0933	0.0011	0.38	OE
2NDJGT	*	0.0907	-0.0039	-1.33	0.0930	0.0008	0.26	DR
2NZEBM		0.0960	0.0015	0.51	0.0940	0.0018	0.60	XX
2UDW7B		0.0947	0.0001	0.05	0.0927	0.0005	0.16	IC
2VXVXL	X	0.1055	0.0110	3.79	0.1031	0.0109	3.68	OE
2XE3HV		0.1003	0.0058	2.00	0.0977	0.0054	1.84	OE
34M4TW		0.0913	-0.0032	-1.10	0.0890	-0.0032	-1.09	OE
37GPP9		0.0947	0.0001	0.05	0.0923	0.0001	0.04	AE
3E8E69	*	0.0928	-0.0017	-0.58	0.0933	0.0011	0.36	OE
3P6Y7V		0.0947	0.0001	0.05	0.0923	0.0001	0.04	XX
3Y9L6Z		0.0883	-0.0062	-2.13	0.0860	-0.0062	-2.11	OE
468WTY		0.0927	-0.0018	-0.61	0.0906	-0.0016	-0.54	IC
46N9B4		0.0931	-0.0014	-0.48	0.0915	-0.0007	-0.23	IC
4BJLRZ		0.1003	0.0058	2.00	0.0980	0.0058	1.96	OE
4DZ6EP	X	0.1030	0.0085	2.92	0.1030	0.0108	3.65	OE
4KBHQ2		0.0935	-0.0010	-0.35	0.0921	-0.0002	-0.05	OE
4NTTRC		0.0928	-0.0018	-0.60	0.0917	-0.0005	-0.17	OE
4VQNBH		0.0940	-0.0005	-0.18	0.0930	0.0008	0.26	OE
69DZVR	X	0.1180	0.0235	8.09	0.1147	0.0224	7.60	OE
6MWTCC		0.0940	-0.0005	-0.18	0.0923	0.0001	0.04	OE
6WWU8X		0.0931	-0.0014	-0.48	0.0908	-0.0015	-0.49	OE
73X36J		0.0950	0.0005	0.17	0.0933	0.0011	0.38	OE
7HMTPD		0.0930	-0.0015	-0.52	0.0910	-0.0012	-0.41	OE
7MAP94		0.0933	-0.0012	-0.41	0.0900	-0.0022	-0.75	OE
7WULRB		0.0900	-0.0045	-1.56	0.0860	-0.0062	-2.11	OE
84KKK4		0.0932	-0.0013	-0.45	0.0915	-0.0007	-0.23	IC
89EJVT		0.0968	0.0022	0.78	0.0945	0.0023	0.77	OE
8GGVL3		0.0977	0.0031	1.09	0.0953	0.0031	1.05	OE
8N89VV		0.0947	0.0001	0.05	0.0928	0.0005	0.18	AE
8NAFDW		0.0973	0.0028	0.97	0.0957	0.0034	1.17	OE
8QQD42		0.0957	0.0011	0.40	0.0920	-0.0002	-0.08	OE
9832FU		0.0983	0.0038	1.32	0.0957	0.0034	1.17	IC
987V7E		0.0967	0.0021	0.74	0.0933	0.0011	0.38	OE
99ZWBN		0.0910	-0.0036	-1.22	0.0883	-0.0039	-1.33	OE
9DM6LB		0.0943	-0.0003	-0.09	0.0921	-0.0002	-0.05	IC
9GPA8W		0.0980	0.0035	1.20	0.0960	0.0038	1.28	OE
9KRGHE		0.0945	0.0000	0.00	0.0919	-0.0004	-0.13	OE
9N7M7V		0.0977	0.0031	1.09	0.0960	0.0038	1.28	OE
9Z3MQL		0.0950	0.0005	0.17	0.0927	0.0004	0.15	OE
9ZLNGV		0.0935	-0.0010	-0.34	0.0907	-0.0016	-0.53	OE
A2VHYL		0.0936	-0.0010	-0.33	0.0909	-0.0014	-0.46	OE

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
A3TVJT		0.0887	-0.0059	-2.02	0.0867	-0.0056	-1.88	OE
ACUJKX		0.0913	-0.0032	-1.10	0.0873	-0.0049	-1.66	GD
AEDM33		0.0923	-0.0023	-0.78	0.0898	-0.0024	-0.81	OE
AGU8GD		0.0963	0.0018	0.63	0.0937	0.0014	0.49	XX
APMF34		0.0966	0.0020	0.71	0.0936	0.0013	0.45	OE
AUYKFP		0.0930	-0.0015	-0.52	0.0917	-0.0006	-0.19	IC
B3LYLE		0.0977	0.0031	1.09	0.0953	0.0031	1.05	OE
B6CX2X	X	0.1047	0.0101	3.50	0.1027	0.0104	3.54	OE
B8PMWA		0.0905	-0.0040	-1.38	0.0880	-0.0042	-1.43	IC
B8XQ3T		0.0940	-0.0005	-0.18	0.0927	0.0004	0.15	OE
BE2UTR		0.0930	-0.0016	-0.53	0.0907	-0.0015	-0.52	OE
BLWEZ9		0.0986	0.0041	1.41	0.0966	0.0043	1.47	OE
BMDUM3		0.0944	-0.0001	-0.03	0.0919	-0.0003	-0.10	GD
BQ6VZV		0.0923	-0.0022	-0.75	0.0913	-0.0009	-0.30	IC
BT9RJY	X	0.0847	-0.0099	-3.39	0.0843	-0.0079	-2.67	OE
C72A86		0.0925	-0.0021	-0.71	0.0897	-0.0025	-0.84	OE
CAAQ8T	X	0.1118	0.0173	5.97	0.1089	0.0167	5.65	OE
CF2ZGQ		0.0980	0.0035	1.20	0.0960	0.0038	1.28	IC
CNY7AD		0.0950	0.0005	0.17	0.0913	-0.0009	-0.30	IC
CRJ6UM		0.0967	0.0021	0.74	0.0953	0.0031	1.05	OE
D2MGNV		0.0965	0.0020	0.70	0.0948	0.0026	0.87	AE
D4NYUX	X	0.0907	-0.0039	-1.33	0.0847	-0.0076	-2.56	GD
DE43LP	X	0.0970	0.0025	0.86	0.0920	-0.0002	-0.08	IC
DFLDYG		0.0946	0.0001	0.04	0.0923	0.0001	0.04	IC
DMY8FQ		0.0910	-0.0035	-1.21	0.0891	-0.0031	-1.05	IC
DTNKGE		0.0970	0.0024	0.84	0.0940	0.0018	0.60	OE
DXGMHT		0.0929	-0.0017	-0.57	0.0902	-0.0021	-0.70	IC
DZ2G48		0.0987	0.0041	1.43	0.0950	0.0028	0.94	GD
ET3FD7		0.0965	0.0020	0.70	0.0933	0.0011	0.36	OE
F6AGTW		0.0933	-0.0012	-0.41	0.0908	-0.0014	-0.47	OE
F8F43U		0.0931	-0.0014	-0.49	0.0909	-0.0013	-0.44	OE
FBKH6R		0.0890	-0.0055	-1.90	0.0867	-0.0056	-1.88	OE
FGETFW		0.0949	0.0004	0.14	0.0918	-0.0004	-0.14	OE
FJVC7T		0.0939	-0.0006	-0.20	0.0918	-0.0004	-0.14	OE
FK6J6E		0.0953	0.0008	0.28	0.0947	0.0024	0.83	OE
FKTNZZ		0.0967	0.0021	0.74	0.0927	0.0004	0.15	GD
FWHJ29		0.0950	0.0005	0.17	0.0931	0.0008	0.29	OE
FXNTQD	X	0.0800	-0.0145	-5.00	0.0700	-0.0222	-7.53	GD
GMMH4N		0.0903	-0.0042	-1.44	0.0870	-0.0052	-1.77	OE
GNWM47		0.0950	0.0005	0.17	0.0943	0.0021	0.71	GD
GTVRJX	X	0.1520	0.0575	19.81	0.1530	0.0608	20.58	OE
GUAU73		0.0947	0.0001	0.05	0.0927	0.0005	0.16	IC
GY3YXL		0.0969	0.0024	0.83	0.0947	0.0025	0.84	OE
H2JA9Q		0.0970	0.0025	0.86	0.0957	0.0034	1.17	OE
H2PRJN		0.0932	-0.0013	-0.45	0.0915	-0.0007	-0.23	XX
H3GBF3		0.0976	0.0031	1.06	0.0954	0.0032	1.09	OE
HHNP26		0.0937	-0.0009	-0.29	0.0910	-0.0012	-0.41	IC

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
HJFNF4		0.0957	0.0011	0.40	0.0927	0.0004	0.15	OE
HNZZMR		0.1020	0.0075	2.59	0.0990	0.0068	2.29	OE
HQG2EL		0.0958	0.0013	0.44	0.0938	0.0015	0.52	IC
JBA6Q7	*	0.0943	-0.0002	-0.06	0.0960	0.0038	1.28	IC
JD2F7K		0.0927	-0.0019	-0.64	0.0903	-0.0019	-0.64	WD
K9WTNV		0.0965	0.0019	0.67	0.0937	0.0015	0.50	XX
KH9E4V		0.0970	0.0025	0.86	0.0963	0.0041	1.39	OE
KHA62D		0.0950	0.0005	0.18	0.0937	0.0014	0.49	OE
KLZB8H		0.0937	-0.0009	-0.29	0.0920	-0.0002	-0.08	XX
KNUJNJ		0.0912	-0.0034	-1.15	0.0885	-0.0037	-1.25	OE
KTVDU2		0.0927	-0.0019	-0.64	0.0907	-0.0016	-0.53	IC
LA664B		0.0921	-0.0024	-0.82	0.0902	-0.0020	-0.69	OE
LMMDAM		0.0983	0.0038	1.30	0.0957	0.0035	1.18	OE
LNA4P9		0.0953	0.0007	0.26	0.0924	0.0002	0.07	OE
LQB4YD		0.0939	-0.0006	-0.20	0.0907	-0.0015	-0.51	OE
LTBWEY		0.0973	0.0028	0.97	0.0947	0.0024	0.83	DR
M2EHP7		0.0872	-0.0073	-2.52	0.0845	-0.0077	-2.61	XX
MAKF49		0.0997	0.0051	1.77	0.0957	0.0034	1.17	IC
MCLAFD		0.0927	-0.0019	-0.64	0.0907	-0.0015	-0.52	OE
MM7HFT		0.0877	-0.0069	-2.36	0.0853	-0.0069	-2.33	OE
MR274M	X	0.1013	0.0067	2.33	0.1007	0.0085	2.88	OE
MRGPNK		0.0934	-0.0011	-0.38	0.0904	-0.0018	-0.62	OE
MWT9A8		0.0923	-0.0022	-0.75	0.0896	-0.0026	-0.89	OE
MYJJ3L		0.0936	-0.0009	-0.32	0.0918	-0.0005	-0.16	IC
N6QTFE		0.0934	-0.0011	-0.39	0.0909	-0.0014	-0.46	OE
N9P4CE		0.0997	0.0051	1.77	0.0980	0.0058	1.96	OE
NBUFRA		0.0953	0.0008	0.28	0.0923	0.0001	0.04	XX
NHUBQE		0.0987	0.0041	1.43	0.0963	0.0041	1.39	GD
NPHUBH		0.0942	-0.0003	-0.10	0.0910	-0.0012	-0.40	OE
NXRN9Q		0.0937	-0.0009	-0.29	0.0900	-0.0022	-0.75	OE
PBCLQZ		0.0970	0.0024	0.84	0.0956	0.0034	1.15	OE
PLEDHK		0.0958	0.0013	0.44	0.0939	0.0017	0.58	OE
PPVMPW	X	0.0877	-0.0069	-2.36	0.0837	-0.0086	-2.90	XX
PRQE3G		0.0959	0.0014	0.48	0.0928	0.0005	0.18	XX
QDEKEH		0.0970	0.0025	0.87	0.0945	0.0023	0.78	OE
QLQMRW		0.0920	-0.0025	-0.87	0.0903	-0.0019	-0.64	OE
R86LK6		0.0954	0.0009	0.31	0.0931	0.0008	0.28	OE
RB2TPU		0.0883	-0.0062	-2.13	0.0867	-0.0056	-1.88	XX
RMTEWJ		0.0966	0.0020	0.71	0.0932	0.0010	0.34	OE
RPYFW3		0.0883	-0.0062	-2.13	0.0870	-0.0052	-1.77	OE
RVC34D		0.0967	0.0021	0.74	0.0953	0.0031	1.05	OE
RXQCQB		0.0940	-0.0005	-0.18	0.0930	0.0008	0.26	OE
T3EGRE		0.0938	-0.0007	-0.25	0.0919	-0.0004	-0.12	OE
TDXVVG		0.0981	0.0035	1.22	0.0965	0.0043	1.46	OE
TUCGUJ		0.0933	-0.0012	-0.42	0.0915	-0.0007	-0.25	OE
TWDJM2		0.0965	0.0020	0.68	0.0943	0.0021	0.70	OE
U69UJH		0.0970	0.0025	0.86	0.0933	0.0011	0.38	OE

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
UENG2C	X	0.1114	0.0169	5.83	0.1082	0.0160	5.42	OE
UF4WVY	X	0.0797	-0.0149	-5.12	0.0797	-0.0126	-4.25	OE
UHQA23		0.0960	0.0015	0.51	0.0943	0.0021	0.71	WD
UQ7JVW		0.0927	-0.0019	-0.64	0.0913	-0.0009	-0.30	OE
UYYPFW		0.0957	0.0011	0.40	0.0940	0.0018	0.60	AE
UZUVR4		0.0947	0.0001	0.05	0.0920	-0.0002	-0.08	XX
V24NJ3		0.0982	0.0036	1.26	0.0962	0.0040	1.36	XX
V6ZTUG		0.0895	-0.0050	-1.73	0.0870	-0.0052	-1.77	OE
V7WWEW		0.0958	0.0013	0.45	0.0949	0.0027	0.91	OE
VDKEER		0.0977	0.0032	1.09	0.0955	0.0033	1.11	OE
VDQLXZ		0.0967	0.0021	0.74	0.0943	0.0021	0.71	WD
VKHV2Q		0.0943	-0.0002	-0.06	0.0923	0.0001	0.04	OE
W2WDU6		0.0925	-0.0020	-0.70	0.0910	-0.0013	-0.43	IC
W6C4XE		0.0948	0.0003	0.11	0.0927	0.0005	0.16	OE
WPLJPC	*	0.0900	-0.0045	-1.56	0.0900	-0.0022	-0.75	OE
WVFFE3		0.0901	-0.0044	-1.52	0.0873	-0.0049	-1.67	OE
XLJF94		0.0956	0.0011	0.38	0.0941	0.0018	0.62	OE
YBC3L9		0.0939	-0.0006	-0.21	0.0916	-0.0006	-0.21	OE
YL8DRU		0.0967	0.0021	0.74	0.0953	0.0031	1.05	OE
YQAEM6		0.0927	-0.0019	-0.64	0.0890	-0.0032	-1.09	OE
YYRZJF		0.0910	-0.0035	-1.21	0.0880	-0.0042	-1.43	OE
Z7U2Z2		0.0933	-0.0013	-0.43	0.0908	-0.0014	-0.48	OE
ZQP9D6		0.0957	0.0011	0.40	0.0937	0.0014	0.49	OE
ZRZBY4		0.0987	0.0041	1.43	0.0947	0.0024	0.83	OE

Summary Statistics

	Sample L61		Sample L62	
Grand Means	0.0945	Percent	0.0922	Percent
Stnd Dev Btwn Labs	0.0029	Percent	0.0030	Percent

Samples L61, L62 : AISI 4140, AISI 4140

Statistics based on 147 of 165 reporting participants

Key to Method Codes Reported by Participants

AE	Spectrometry - Atomic Emission (AES)	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 #176

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

4DZ6EP (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample L61.

69DZVR (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample L62.

B6CX2X (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

BT9RJY (X) - Data for sample L61 are low.

CAAQ8T (X) - Data for both samples are high. Possible Systematic Error.

D4NYUX (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.

DE43LP (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L61.

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

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

MR274M (X) - Data for sample L62 are high.

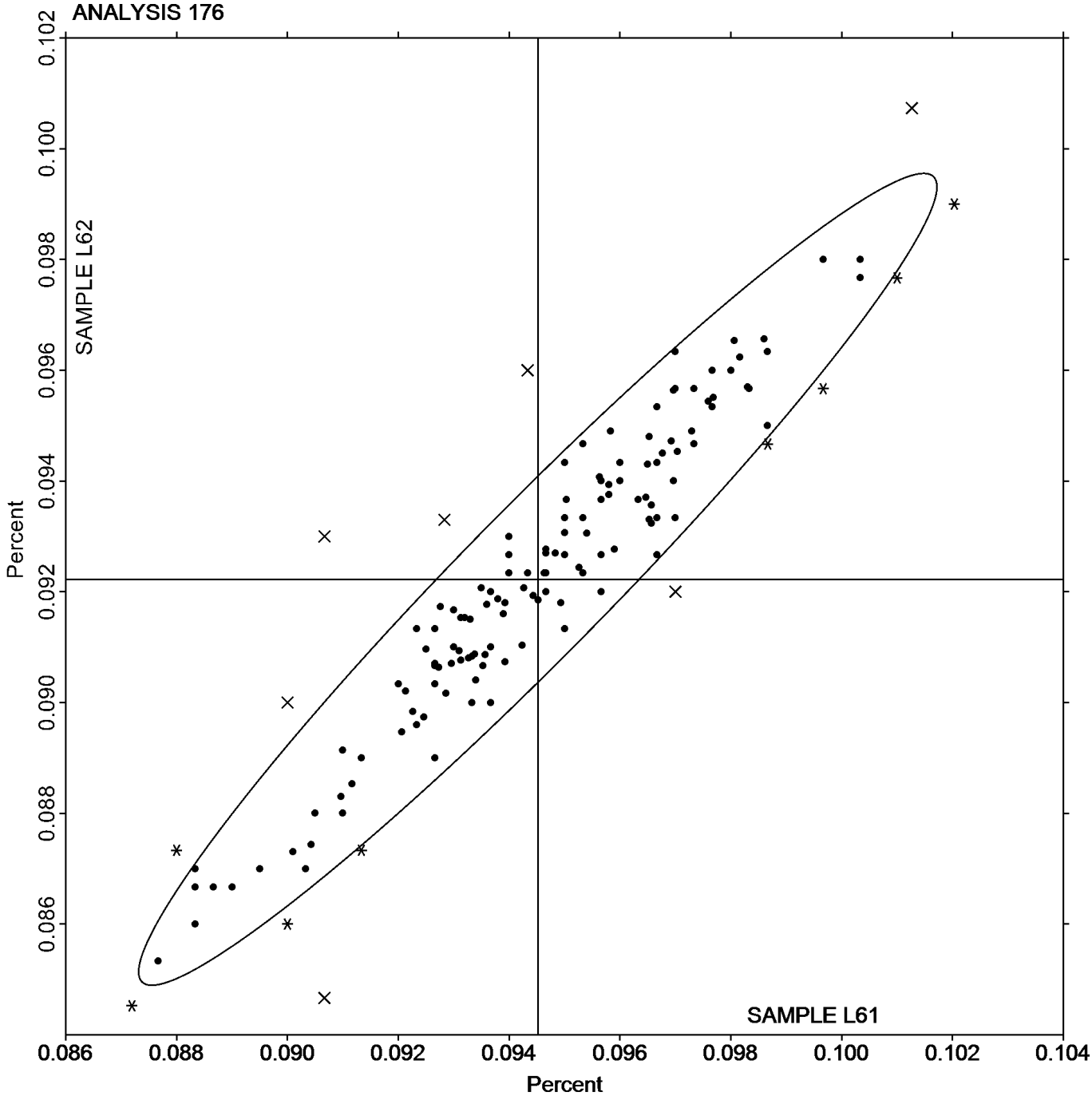
PPVMPW (X) - Data for sample L62 are low. Inconsistent within the determinations of both samples.

UENG2C (X) - Data for both samples are high. Possible Systematic Error.

UF4WVY (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.

SAMPLE L61
0.0945 Percent

SAMPLE L62
0.0922 Percent



		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
23F78F	*	0.9957	0.0358	2.93	0.9650	0.0331	2.73	OE
24URN6		0.9560	-0.0039	-0.32	0.9240	-0.0079	-0.65	IC
2AEGXZ		0.9614	0.0015	0.12	0.9363	0.0044	0.37	OE
2BPRYQ	X	0.9315	-0.0284	-2.32	0.9535	0.0216	1.78	IC
2JXZ8Y	X	0.9990	0.0391	3.21	0.9640	0.0321	2.65	GD
2MMRT9		0.9713	0.0115	0.94	0.9493	0.0174	1.44	OE
2NDJGT	X	0.9313	-0.0285	-2.34	0.9703	0.0384	3.17	DR
2NZEBM		0.9677	0.0078	0.64	0.9423	0.0104	0.86	OE
2UDW7B		0.9603	0.0005	0.04	0.9303	-0.0016	-0.13	IC
2VXVXL		0.9573	-0.0025	-0.21	0.9257	-0.0062	-0.51	OE
2XE3HV		0.9433	-0.0165	-1.35	0.9267	-0.0052	-0.43	OE
33EVNH	*	0.9513	-0.0085	-0.70	0.9427	0.0108	0.89	DR
34M4TW		0.9607	0.0008	0.07	0.9337	0.0018	0.15	OE
37GPP9		0.9717	0.0118	0.97	0.9427	0.0108	0.89	AE
3E8E69		0.9879	0.0280	2.30	0.9623	0.0304	2.51	OE
3Y9L6Z		0.9733	0.0135	1.10	0.9477	0.0158	1.30	OE
468WTY		0.9616	0.0017	0.14	0.9298	-0.0021	-0.17	IC
46N9B4		0.9610	0.0011	0.09	0.9370	0.0051	0.42	IC
4BJLRZ		0.9633	0.0035	0.28	0.9303	-0.0016	-0.13	OE
4DZ6EP	X	0.9530	-0.0069	-0.56	0.8920	-0.0399	-3.29	OE
4KBHQ2		0.9500	-0.0098	-0.81	0.9320	0.0001	0.01	OE
4NTTRC		0.9626	0.0028	0.23	0.9440	0.0121	1.00	OE
4VQNBH		0.9550	-0.0049	-0.40	0.9363	0.0044	0.37	OE
69DZVR		0.9653	0.0055	0.45	0.9370	0.0051	0.42	OE
6MWTCC		0.9333	-0.0265	-2.17	0.9067	-0.0252	-2.08	OE
6WWU8X		0.9598	0.0000	0.00	0.9297	-0.0022	-0.18	OE
73X36J		0.9303	-0.0295	-2.42	0.8993	-0.0326	-2.69	OE
7HMTPD		0.9507	-0.0092	-0.75	0.9267	-0.0052	-0.43	OE
7MAP94	*	0.9480	-0.0119	-0.97	0.9047	-0.0272	-2.25	OE
7WULRB		0.9520	-0.0079	-0.64	0.9207	-0.0112	-0.93	OE
84KKK4		0.9580	-0.0019	-0.15	0.9290	-0.0029	-0.24	IC
89EJVT		0.9598	0.0000	0.00	0.9348	0.0029	0.24	OE
8GGVL3		0.9490	-0.0109	-0.89	0.9200	-0.0119	-0.98	OE
8N89VV		0.9831	0.0232	1.90	0.9603	0.0284	2.34	AE
8NAFDW		0.9823	0.0225	1.84	0.9570	0.0251	2.07	OE
8QQD42		0.9500	-0.0099	-0.81	0.9217	-0.0102	-0.84	OE
9832FU	X	1.010	0.0501	4.11	0.9863	0.0544	4.49	IC
987V7E	*	0.9733	0.0135	1.10	0.9267	-0.0052	-0.43	OE
99ZWBN		0.9553	-0.0045	-0.37	0.9283	-0.0036	-0.29	OE
9DM6LB		0.9660	0.0061	0.50	0.9368	0.0049	0.40	IC
9GPA8W		0.9553	-0.0045	-0.37	0.9377	0.0058	0.48	OE
9KRGHE		0.9687	0.0088	0.72	0.9395	0.0076	0.63	OE
9N7M7V		0.9707	0.0108	0.88	0.9420	0.0101	0.83	OE
9Z3MQL		0.9540	-0.0059	-0.48	0.9290	-0.0029	-0.24	OE
9ZLNGV		0.9640	0.0042	0.34	0.9265	-0.0054	-0.45	OE
A2VHYL		0.9613	0.0014	0.11	0.9297	-0.0022	-0.18	OE
A3TVJT	X	1.055	0.0948	7.77	1.013	0.0811	6.69	OE

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
ACUJKX		0.9600	0.0001	0.01	0.9357	0.0038	0.31	GD
AEDM33		0.9513	-0.0085	-0.70	0.9237	-0.0082	-0.68	OE
AGU8GD		0.9610	0.0011	0.09	0.9320	0.0001	0.01	XX
APMF34		0.9602	0.0004	0.03	0.9238	-0.0081	-0.67	OE
AUYKFP		0.9647	0.0048	0.39	0.9390	0.0071	0.59	IC
B3LYLE		0.9560	-0.0039	-0.32	0.9263	-0.0056	-0.46	OE
B6CX2X	*	0.9597	-0.0002	-0.02	0.9460	0.0141	1.16	XX
B8PMWA	X	0.9675	0.0076	0.63	0.9855	0.0536	4.42	IC
B8XQ3T		0.9723	0.0125	1.02	0.9467	0.0148	1.22	OE
BE2UTR		0.9548	-0.0050	-0.41	0.9233	-0.0086	-0.71	OE
BLWEZ9		0.9720	0.0121	0.99	0.9377	0.0058	0.48	OE
BMDUM3		0.9649	0.0051	0.42	0.9328	0.0009	0.07	GD
BQ6VZV		0.9373	-0.0225	-1.85	0.9203	-0.0116	-0.95	IC
BT9RJY		0.9503	-0.0095	-0.78	0.9217	-0.0102	-0.84	OE
C72A86		0.9489	-0.0109	-0.90	0.9200	-0.0119	-0.98	OE
CAAQ8T		0.9537	-0.0062	-0.51	0.9138	-0.0181	-1.49	OE
CF2ZGQ	X	1.013	0.0535	4.38	0.9830	0.0511	4.22	IC
CNY7AD		0.9620	0.0021	0.17	0.9303	-0.0016	-0.13	IC
CRJ6UM		0.9747	0.0148	1.21	0.9527	0.0208	1.71	OE
D2MGNV		0.9528	-0.0071	-0.58	0.9325	0.0006	0.05	AE
D4NYUX		0.9933	0.0335	2.74	0.9583	0.0264	2.18	GD
DE43LP		0.9807	0.0208	1.70	0.9490	0.0171	1.41	IC
DFLDYG		0.9484	-0.0114	-0.94	0.9230	-0.0089	-0.74	IC
DMY8FQ		0.9480	-0.0119	-0.97	0.9203	-0.0116	-0.95	IC
DTNKGE		0.9709	0.0111	0.91	0.9390	0.0071	0.59	OE
DXGMHT		0.9600	0.0001	0.01	0.9293	-0.0026	-0.21	IC
DZ2G48		0.9760	0.0161	1.32	0.9460	0.0141	1.16	GD
ET3FD7		0.9607	0.0008	0.07	0.9223	-0.0096	-0.79	OE
F6AGTW		0.9463	-0.0136	-1.11	0.9124	-0.0195	-1.61	OE
F8F43U		0.9553	-0.0045	-0.37	0.9270	-0.0049	-0.40	OE
FBKH6R		0.9527	-0.0072	-0.59	0.9347	0.0028	0.23	OE
FGETFW		0.9778	0.0180	1.47	0.9434	0.0115	0.95	XX
FJVC7T		0.9700	0.0102	0.83	0.9326	0.0007	0.06	OE
FK6J6E		0.9477	-0.0122	-1.00	0.9343	0.0024	0.20	OE
FKTNZZ		0.9303	-0.0295	-2.42	0.9047	-0.0272	-2.25	GD
FWHJ29		0.9657	0.0058	0.48	0.9400	0.0081	0.67	OE
FXNTQD	X	0.5900	-0.3699	-30.30	0.4800	-0.4519	-37.29	GD
GMMH4N		0.9753	0.0155	1.27	0.9490	0.0171	1.41	OE
GNWM47		0.9563	-0.0035	-0.29	0.9183	-0.0136	-1.12	GD
GTVRJX		0.9600	0.0001	0.01	0.9200	-0.0119	-0.98	OE
GUAU73		0.9603	0.0005	0.04	0.9303	-0.0016	-0.13	IC
GY3YXL		0.9582	-0.0017	-0.14	0.9305	-0.0014	-0.12	OE
H2JA9Q		0.9410	-0.0189	-1.55	0.9213	-0.0106	-0.87	OE
H2PRJN		0.9580	-0.0019	-0.15	0.9290	-0.0029	-0.24	XX
H3GBF3		0.9837	0.0238	1.95	0.9557	0.0238	1.96	OE
HHNP26		0.9657	0.0058	0.48	0.9420	0.0101	0.83	IC
HJFNF4	X	0.9967	0.0368	3.01	0.9760	0.0441	3.64	OE

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
HNZZMR		0.9593	-0.0006	-0.05	0.9272	-0.0047	-0.39	OE
HQG2EL		0.9664	0.0065	0.53	0.9382	0.0063	0.52	IC
JBA6Q7		0.9763	0.0165	1.35	0.9507	0.0188	1.55	IC
JD2F7K	*	0.9260	-0.0339	-2.77	0.9023	-0.0296	-2.44	WD
K9WTNV	*	0.9973	0.0375	3.07	0.9660	0.0341	2.81	XX
KH9E4V		0.9474	-0.0125	-1.02	0.9239	-0.0080	-0.66	OE
KHA62D		0.9662	0.0063	0.52	0.9419	0.0100	0.83	OE
KLZB8H		0.9523	-0.0075	-0.62	0.9313	-0.0006	-0.05	XX
KNUJNJ		0.9830	0.0231	1.90	0.9557	0.0238	1.96	OE
KTVDU2		0.9473	-0.0125	-1.03	0.9260	-0.0059	-0.49	IC
LA664B		0.9579	-0.0020	-0.16	0.9286	-0.0033	-0.27	OE
LMMDAM		0.9443	-0.0155	-1.27	0.9180	-0.0139	-1.15	OE
LNA4P9		0.9540	-0.0059	-0.48	0.9137	-0.0182	-1.50	OE
LQB4YD		0.9537	-0.0062	-0.51	0.9183	-0.0136	-1.12	OE
LTBWEY		0.9360	-0.0239	-1.96	0.9070	-0.0249	-2.05	DR
M2EHP7		0.9596	-0.0003	-0.02	0.9273	-0.0046	-0.38	XX
MAKF49		0.9763	0.0165	1.35	0.9403	0.0084	0.70	IC
MCLAFD		0.9628	0.0030	0.24	0.9345	0.0026	0.22	OE
MM7HFT		0.9547	-0.0052	-0.43	0.9230	-0.0089	-0.73	OE
MR274M	X	0.9287	-0.0312	-2.56	0.8861	-0.0458	-3.78	OE
MRGPNK	*	0.9571	-0.0027	-0.22	0.9539	0.0220	1.82	OE
MWT9A8		0.9530	-0.0069	-0.56	0.9197	-0.0122	-1.01	OE
MYJJ3L		0.9497	-0.0102	-0.84	0.9360	0.0041	0.34	IC
N6QTFE		0.9685	0.0087	0.71	0.9354	0.0035	0.29	OE
N9P4CE		0.9563	-0.0035	-0.29	0.9253	-0.0066	-0.54	OE
NHUBQE		0.9733	0.0135	1.10	0.9500	0.0181	1.49	GD
NPHUBH		0.9683	0.0084	0.69	0.9342	0.0023	0.19	OE
NXRN9Q		0.9600	0.0001	0.01	0.9277	-0.0042	-0.35	OE
PBCLQZ		0.9603	0.0004	0.03	0.9293	-0.0026	-0.21	OE
PLEDHK	X	0.9162	-0.0436	-3.57	0.8988	-0.0331	-2.73	OE
PPVMPW		0.9483	-0.0115	-0.94	0.9233	-0.0086	-0.71	XX
PRQE3G		0.9690	0.0091	0.75	0.9410	0.0091	0.75	OE
QDEKEH		0.9778	0.0180	1.47	0.9501	0.0182	1.50	OE
QLQMRW		0.9593	-0.0005	-0.04	0.9213	-0.0106	-0.87	OE
R86LK6		0.9676	0.0077	0.63	0.9374	0.0055	0.45	OE
RMTEWJ		0.9526	-0.0073	-0.60	0.9230	-0.0089	-0.73	OE
RPYFW3		0.9580	-0.0019	-0.15	0.9277	-0.0042	-0.35	OE
RVC34D		0.9547	-0.0052	-0.43	0.9314	-0.0005	-0.04	OE
RXQCQB		0.9667	0.0068	0.56	0.9333	0.0014	0.12	OE
T3EGRE		0.9588	-0.0011	-0.09	0.9312	-0.0007	-0.06	OE
TDXVVG		0.9407	-0.0192	-1.57	0.9190	-0.0129	-1.06	OE
TUCGUJ		0.9514	-0.0085	-0.69	0.9258	-0.0061	-0.51	OE
TWDJM2		0.9547	-0.0051	-0.42	0.9263	-0.0056	-0.46	OE
U69UJH		0.9543	-0.0055	-0.45	0.9213	-0.0106	-0.87	OE
UENG2C		0.9611	0.0013	0.10	0.9281	-0.0038	-0.32	OE
UF4WVY		0.9610	0.0011	0.09	0.9357	0.0038	0.31	OE
UHQA23		0.9753	0.0155	1.27	0.9413	0.0094	0.78	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 177

Carbon & Low Alloy Steel, Element #8
CHROMIUM (Cr)

WebCode	Data Flag	Sample L61 Lab Mean	Sample L61 Diff. from Grand Mean	Sample L61 CPV	Sample L62 Lab Mean	Sample L62 Diff. from Grand Mean	Sample L62 CPV	Method
UQ7JVW		0.9570	-0.0029	-0.23	0.9317	-0.0002	-0.02	OE
UYYPFW		0.9527	-0.0072	-0.59	0.9333	0.0014	0.12	AE
UZUVR4		0.9470	-0.0129	-1.05	0.9250	-0.0069	-0.57	DR
V24NJ3		0.9467	-0.0132	-1.08	0.9184	-0.0135	-1.12	XX
V6ZTUG		0.9680	0.0081	0.67	0.9400	0.0081	0.67	OE
V7WWEW		0.9612	0.0013	0.11	0.9380	0.0061	0.50	OE
VDKEER		0.9481	-0.0118	-0.96	0.9218	-0.0101	-0.83	OE
VDQLXZ		0.9597	-0.0002	-0.02	0.9277	-0.0042	-0.35	WD
VKHV2Q		0.9587	-0.0012	-0.10	0.9333	0.0014	0.12	OE
W2WDU6		0.9542	-0.0057	-0.46	0.9333	0.0014	0.12	IC
W6C4XE		0.9574	-0.0025	-0.20	0.9299	-0.0020	-0.16	OE
WPLJPC		0.9567	-0.0032	-0.26	0.9267	-0.0052	-0.43	OE
WVFFE3		0.9584	-0.0015	-0.12	0.9307	-0.0012	-0.10	OE
XLJF94		0.9661	0.0062	0.51	0.9464	0.0145	1.19	OE
YBC3L9		0.9615	0.0016	0.13	0.9314	-0.0005	-0.04	OE
YL8DRU		0.9517	-0.0082	-0.67	0.9183	-0.0136	-1.12	OE
YQAEM6		0.9717	0.0118	0.97	0.9457	0.0138	1.14	OE
YYRZJF		0.9500	-0.0099	-0.81	0.9237	-0.0082	-0.68	OE
Z7U2Z2		0.9533	-0.0065	-0.54	0.9253	-0.0066	-0.54	OE
ZQP9D6		0.9390	-0.0209	-1.71	0.9127	-0.0192	-1.59	OE
ZRZBY4		0.9717	0.0118	0.97	0.9360	0.0041	0.34	OE

Summary Statistics

	Sample L61		Sample L62	
Grand Means	0.9599	Percent	0.9319	Percent
Stnd Dev Btwn Labs	0.0122	Percent	0.0121	Percent

Samples L61, L62 : AISI 4140, AISI 4140

Statistics based on 146 of 162 reporting participants

Key to Method Codes Reported by Participants

AE	Spectrometry - Atomic Emission (AES)	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 #177

2BPRYQ (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L61.

2JXZ8Y (X) - Data for sample L61 are high. Inconsistent within the determinations of sample L62.

2NDJGT (X) - Data for sample L62 are high.

4DZ6EP (X) - Data for sample L62 are low.

9832FU (X) - Data for both samples are high. Possible Systematic Error.

A3TVJT (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of both samples.

B8PMWA (X) - Data for sample L62 are high. Inconsistent within the determinations of sample L61.

CF2ZGQ (X) - Data for both samples are high. Possible Systematic Error.

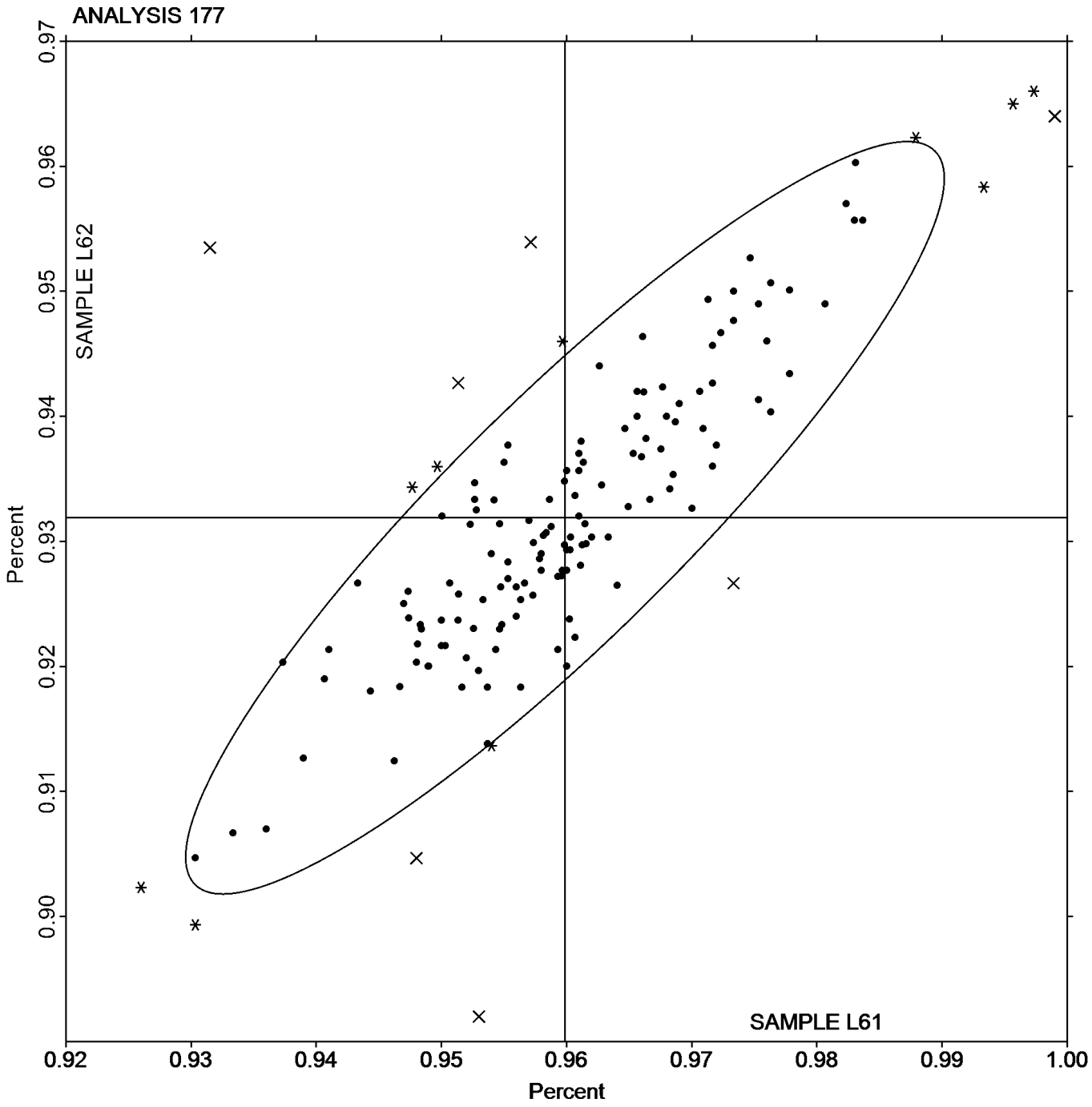
FXNTQD (X) - Extreme data.

HJFNF4 (X) - Data for both samples are high. Possible Systematic Error.

MR274M (X) - Data for sample L62 are low.

PLEDHK (X) - Data for sample L61 are low.

SAMPLE L61	SAMPLE L62
0.9599 Percent	0.9319 Percent



		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
23F78F		0.2593	0.0098	1.86	0.2377	0.0073	1.47	OE
24URN6		0.2473	-0.0022	-0.42	0.2233	-0.0071	-1.43	IC
2AEGXZ		0.2535	0.0039	0.75	0.2338	0.0034	0.69	OE
2BPRYQ	*	0.2384	-0.0112	-2.14	0.2285	-0.0019	-0.38	IC
2JXZ8Y	X	0.2700	0.0204	3.90	0.2443	0.0139	2.83	GD
2MMRT9	*	0.2550	0.0054	1.04	0.2417	0.0113	2.29	OE
2NDJGT	X	0.2287	-0.0209	-3.99	0.2533	0.0229	4.65	DR
2UDW7B		0.2508	0.0012	0.23	0.2310	0.0006	0.12	IC
2VXVXL		0.2497	0.0001	0.02	0.2297	-0.0007	-0.13	OE
2XE3HV		0.2490	-0.0006	-0.11	0.2310	0.0006	0.12	OE
34M4TW		0.2477	-0.0019	-0.36	0.2277	-0.0027	-0.55	OE
37GPP9		0.2420	-0.0076	-1.44	0.2217	-0.0087	-1.77	AE
3E8E69		0.2417	-0.0079	-1.50	0.2254	-0.0050	-1.02	OE
3Y9L6Z	X	0.2533	0.0038	0.72	0.2410	0.0106	2.15	OE
468WTY		0.2483	-0.0013	-0.24	0.2290	-0.0014	-0.29	IC
46N9B4		0.2477	-0.0019	-0.36	0.2297	-0.0007	-0.15	IC
4BJLRZ		0.2538	0.0043	0.82	0.2364	0.0060	1.22	OE
4DZ6EP	X	0.2523	0.0028	0.53	0.2230	-0.0074	-1.50	OE
4KBHQ2		0.2464	-0.0032	-0.61	0.2297	-0.0007	-0.14	OE
4NTTRC		0.2520	0.0024	0.46	0.2334	0.0030	0.62	OE
4VQNBH		0.2510	0.0014	0.27	0.2350	0.0046	0.93	OE
69DZVR		0.2413	-0.0082	-1.57	0.2223	-0.0081	-1.64	OE
6MWTCC		0.2533	0.0038	0.72	0.2300	-0.0004	-0.08	OE
6WWU8X		0.2435	-0.0061	-1.16	0.2246	-0.0058	-1.17	OE
73X36J	X	0.1687	-0.0809	-15.43	0.1553	-0.0751	-15.23	OE
7HMTPD		0.2473	-0.0022	-0.42	0.2270	-0.0034	-0.69	OE
7MAP94		0.2400	-0.0096	-1.82	0.2233	-0.0071	-1.43	OE
7WULRB		0.2467	-0.0029	-0.55	0.2280	-0.0024	-0.49	OE
84KKK4		0.2537	0.0041	0.78	0.2297	-0.0007	-0.15	IC
89EJVT		0.2496	0.0000	0.01	0.2340	0.0036	0.74	OE
8GGVL3		0.2563	0.0068	1.29	0.2370	0.0066	1.34	OE
8N89VV		0.2529	0.0033	0.64	0.2342	0.0038	0.77	AE
8NAFDW		0.2497	0.0001	0.02	0.2320	0.0016	0.33	OE
8QQD42		0.2487	-0.0009	-0.17	0.2297	-0.0007	-0.15	OE
9832FU		0.2597	0.0101	1.93	0.2387	0.0083	1.68	IC
987V7E	*	0.2400	-0.0096	-1.82	0.2267	-0.0037	-0.76	OE
99ZWBN		0.2400	-0.0096	-1.82	0.2227	-0.0077	-1.57	OE
9DM6LB		0.2493	-0.0002	-0.04	0.2290	-0.0014	-0.28	IC
9GPA8W		0.2527	0.0031	0.59	0.2347	0.0043	0.87	OE
9KRGHE		0.2514	0.0018	0.35	0.2323	0.0019	0.40	OE
9N7M7V		0.2477	-0.0019	-0.36	0.2300	-0.0004	-0.08	OE
9Z3MQL		0.2520	0.0024	0.47	0.2323	0.0019	0.39	OE
9ZLNGV		0.2481	-0.0014	-0.27	0.2274	-0.0030	-0.61	OE
A2VHYL		0.2505	0.0010	0.19	0.2282	-0.0022	-0.45	OE
A3TVJT		0.2473	-0.0022	-0.42	0.2237	-0.0067	-1.37	OE
ACUJKX		0.2457	-0.0039	-0.74	0.2287	-0.0017	-0.35	GD
AEDM33		0.2503	0.0008	0.15	0.2307	0.0003	0.05	OE

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
AGU8GD		0.2480	-0.0016	-0.30	0.2287	-0.0017	-0.35	XX
APMF34		0.2525	0.0030	0.57	0.2323	0.0019	0.39	OE
AUYKFP		0.2477	-0.0019	-0.36	0.2287	-0.0017	-0.35	IC
B3LYLE		0.2387	-0.0109	-2.08	0.2207	-0.0097	-1.97	OE
B6CX2X		0.2537	0.0041	0.78	0.2347	0.0043	0.87	OE
B8PMWA		0.2540	0.0044	0.85	0.2365	0.0061	1.24	IC
B8XQ3T		0.2517	0.0021	0.40	0.2360	0.0056	1.14	OE
BE2UTR		0.2524	0.0028	0.54	0.2319	0.0015	0.30	OE
BLWEZ9	X	0.2497	0.0001	0.02	0.9377	0.7073	143.46	OE
BMDUM3		0.2549	0.0054	1.03	0.2349	0.0045	0.91	GD
BQ6VZV		0.2450	-0.0046	-0.87	0.2293	-0.0011	-0.22	IC
BT9RJY		0.2520	0.0024	0.47	0.2340	0.0036	0.73	OE
C72A86	X	0.2325	-0.0171	-3.26	0.2172	-0.0132	-2.68	OE
CAAQ8T	X	0.2042	-0.0454	-8.66	0.1875	-0.0429	-8.70	OE
CF2ZGQ		0.2593	0.0098	1.86	0.2380	0.0076	1.54	IC
CNY7AD		0.2450	-0.0046	-0.87	0.2237	-0.0067	-1.37	IC
CRJ6UM		0.2523	0.0028	0.53	0.2337	0.0033	0.66	OE
D2MGNV		0.2441	-0.0055	-1.04	0.2290	-0.0014	-0.28	AE
D4NYUX		0.2403	-0.0092	-1.76	0.2187	-0.0117	-2.38	GD
DE43LP		0.2533	0.0038	0.72	0.2333	0.0029	0.60	IC
DFLDYG		0.2466	-0.0030	-0.57	0.2258	-0.0046	-0.94	IC
DMY8FQ		0.2447	-0.0049	-0.93	0.2260	-0.0044	-0.89	IC
DTNKGE		0.2576	0.0080	1.53	0.2353	0.0049	1.00	OE
DXGMHT		0.2507	0.0011	0.21	0.2300	-0.0004	-0.08	IC
DZ2G48		0.2380	-0.0116	-2.21	0.2197	-0.0107	-2.18	GD
ET3FD7		0.2477	-0.0019	-0.36	0.2257	-0.0047	-0.96	OE
F8F43U		0.2500	0.0004	0.08	0.2320	0.0016	0.33	OE
FBKH6R		0.2480	-0.0016	-0.30	0.2287	-0.0017	-0.35	OE
FGETFW		0.2465	-0.0031	-0.58	0.2247	-0.0057	-1.16	OE
FJVC7T		0.2461	-0.0035	-0.66	0.2245	-0.0059	-1.19	OE
FK6J6E		0.2507	0.0011	0.21	0.2370	0.0066	1.34	OE
FKTNZZ		0.2563	0.0068	1.29	0.2373	0.0069	1.41	XX
FWHJ29		0.2483	-0.0012	-0.23	0.2297	-0.0007	-0.15	OE
FXNTQD	*	0.2600	0.0104	1.99	0.2300	-0.0004	-0.08	GD
GMMH4N		0.2510	0.0014	0.27	0.2300	-0.0004	-0.08	XX
GNWM47		0.2467	-0.0029	-0.55	0.2240	-0.0064	-1.30	GD
GTVRJX		0.2450	-0.0046	-0.87	0.2250	-0.0054	-1.09	OE
GUAU73		0.2508	0.0012	0.23	0.2310	0.0006	0.12	IC
GY3YXL		0.2483	-0.0013	-0.25	0.2290	-0.0014	-0.28	OE
H2JA9Q		0.2540	0.0044	0.85	0.2380	0.0076	1.54	OE
H2PRJN		0.2537	0.0041	0.78	0.2297	-0.0007	-0.15	XX
H3GBF3		0.2380	-0.0116	-2.21	0.2217	-0.0087	-1.77	OE
HHNP26		0.2550	0.0054	1.04	0.2343	0.0039	0.80	IC
HJFNF4	X	0.2180	-0.0316	-6.02	0.2053	-0.0251	-5.08	OE
HNZZMR		0.2570	0.0074	1.42	0.2408	0.0104	2.10	OE
HQG2EL		0.2527	0.0031	0.60	0.2332	0.0028	0.56	IC
JBA6Q7		0.2447	-0.0049	-0.93	0.2273	-0.0031	-0.62	IC

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
JD2F7K		0.2423	-0.0072	-1.38	0.2230	-0.0074	-1.50	WD
K9WTNV	*	0.2647	0.0151	2.88	0.2440	0.0136	2.76	XX
KH9E4V	*	0.2623	0.0128	2.44	0.2447	0.0143	2.89	OE
KHA62D		0.2559	0.0064	1.22	0.2354	0.0050	1.01	OE
KLZB8H		0.2443	-0.0052	-1.00	0.2260	-0.0044	-0.89	XX
KNUJNJ		0.2507	0.0011	0.21	0.2313	0.0009	0.19	OE
KTVDU2		0.2453	-0.0042	-0.81	0.2277	-0.0027	-0.55	IC
LA664B		0.2448	-0.0048	-0.91	0.2264	-0.0040	-0.82	OE
LMMDAM		0.2510	0.0014	0.27	0.2283	-0.0021	-0.42	OE
LNA4P9		0.2483	-0.0012	-0.23	0.2293	-0.0011	-0.22	OE
LQB4YD		0.2497	0.0001	0.02	0.2287	-0.0017	-0.35	OE
LTBWEY		0.2477	-0.0019	-0.36	0.2273	-0.0031	-0.62	DR
M2EHP7		0.2600	0.0105	1.99	0.2377	0.0073	1.49	XX
MAKF49		0.2363	-0.0132	-2.52	0.2203	-0.0101	-2.04	IC
MCLAFD		0.2460	-0.0036	-0.69	0.2283	-0.0021	-0.43	OE
MM7HFT		0.2513	0.0018	0.34	0.2340	0.0036	0.73	OE
MRGPNK		0.2452	-0.0044	-0.83	0.2296	-0.0008	-0.16	OE
MWT9A8		0.2500	0.0004	0.08	0.2273	-0.0031	-0.62	OE
MYJJ3L		0.2443	-0.0052	-1.00	0.2277	-0.0027	-0.55	IC
N6QTFE		0.2533	0.0037	0.71	0.2321	0.0017	0.34	OE
N9P4CE		0.2477	-0.0019	-0.36	0.2297	-0.0007	-0.15	OE
NHUBQE	X	0.2700	0.0204	3.90	0.2533	0.0229	4.65	GD
NPHUBH		0.2579	0.0083	1.58	0.2371	0.0067	1.35	OE
NXRN9Q		0.2453	-0.0042	-0.81	0.2293	-0.0011	-0.22	OE
PBCLQZ	*	0.2625	0.0130	2.48	0.2433	0.0129	2.62	OE
PLEDHK	*	0.2403	-0.0092	-1.76	0.2261	-0.0043	-0.88	OE
PPVMPW		0.2507	0.0011	0.21	0.2327	0.0023	0.46	XX
PRQE3G		0.2503	0.0008	0.15	0.2323	0.0019	0.39	OE
QDEKEH		0.2522	0.0026	0.50	0.2319	0.0015	0.30	OE
QLQMRW		0.2433	-0.0062	-1.19	0.2260	-0.0044	-0.89	OE
R86LK6		0.2511	0.0016	0.30	0.2335	0.0031	0.62	OE
RMTEWJ		0.2495	0.0000	-0.01	0.2298	-0.0006	-0.11	OE
RPYFW3	X	0.2617	0.0121	2.31	0.2497	0.0193	3.91	OE
RVC34D		0.2463	-0.0032	-0.62	0.2287	-0.0017	-0.35	OE
RXQCQB		0.2473	-0.0022	-0.42	0.2283	-0.0021	-0.42	OE
T3EGRE		0.2475	-0.0020	-0.39	0.2300	-0.0004	-0.07	OE
TDXVVG		0.2493	-0.0002	-0.04	0.2317	0.0013	0.26	OE
TUCGUJ		0.2469	-0.0026	-0.50	0.2293	-0.0011	-0.22	OE
TWDJM2		0.2515	0.0019	0.36	0.2326	0.0022	0.45	OE
U69UJH		0.2510	0.0014	0.27	0.2297	-0.0007	-0.15	OE
UENG2C	X	0.2010	-0.0486	-9.27	0.1865	-0.0439	-8.90	OE
UF4WVY		0.2483	-0.0012	-0.23	0.2290	-0.0014	-0.28	XX
UHQA23		0.2530	0.0034	0.66	0.2313	0.0009	0.19	OE
UQ7JVW		0.2507	0.0011	0.21	0.2317	0.0013	0.26	OE
UYYPFW		0.2533	0.0038	0.72	0.2353	0.0049	1.00	AE
UZUVR4		0.2460	-0.0036	-0.68	0.2273	-0.0031	-0.62	DR
V24NJ3		0.2477	-0.0018	-0.35	0.2295	-0.0009	-0.18	XX

Fasteners and Metals Interlaboratory Testing Program

Analysis 178

Carbon & Low Alloy Steel, Element #9
COPPER (Cu)

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
V6ZTUG		0.2490	-0.0006	-0.11	0.2290	-0.0014	-0.28	OE
V7WWEW		0.2573	0.0078	1.48	0.2370	0.0066	1.34	OE
VDKEER		0.2561	0.0065	1.25	0.2358	0.0054	1.10	OE
VDQLXZ		0.2470	-0.0026	-0.49	0.2277	-0.0027	-0.55	WD
VKHV2Q		0.2490	-0.0006	-0.11	0.2297	-0.0007	-0.15	OE
W2WDU6		0.2480	-0.0015	-0.29	0.2303	-0.0001	-0.02	IC
W6C4XE		0.2548	0.0052	1.00	0.2343	0.0039	0.78	OE
WPLJPC		0.2500	0.0004	0.08	0.2300	-0.0004	-0.08	OE
WVFFE3		0.2454	-0.0042	-0.79	0.2253	-0.0051	-1.03	OE
XLJF94	*	0.2505	0.0009	0.17	0.2379	0.0075	1.53	OE
YBC3L9		0.2482	-0.0013	-0.25	0.2278	-0.0026	-0.53	OE
YL8DRU		0.2543	0.0048	0.91	0.2347	0.0043	0.87	OE
YQAEM6	*	0.2647	0.0151	2.88	0.2440	0.0136	2.76	OE
YYRZJF		0.2463	-0.0032	-0.62	0.2257	-0.0047	-0.96	OE
Z7U2Z2		0.2547	0.0051	0.97	0.2357	0.0053	1.07	OE
ZQP9D6		0.2497	0.0001	0.02	0.2327	0.0023	0.46	OE
ZRZBY4		0.2490	-0.0006	-0.11	0.2263	-0.0041	-0.82	OE

Summary Statistics

	Sample L61		Sample L62	
Grand Means	0.2496	Percent	0.2304	Percent
Stnd Dev Btwn Labs	0.0052	Percent	0.0049	Percent

Samples L61, L62 : AISI 4140, AISI 4140

Statistics based on 142 of 158 reporting participants

Key to Method Codes Reported by Participants

AE	Spectrometry - Atomic Emission (AES)	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 #178

2JXZ8Y (X) - Data for both samples are high. Possible Systematic Error.

2NDJGT (X) - Data for sample L61 are low and data for sample L62 are high. Inconsistent in testing between samples.

3Y9L6Z (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L62.

4DZ6EP (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L62.

73X36J (X) - Data for both samples are low. Possible Systematic Error.

BLWEZ9 (X) - Data for sample L62 are extreme.

C72A86 (X) - Data for sample L61 are low.

CAAQ8T (X) - Data for both samples are low. Possible Systematic Error.

HJFNF4 (X) - Data for both samples are low. Possible Systematic Error.

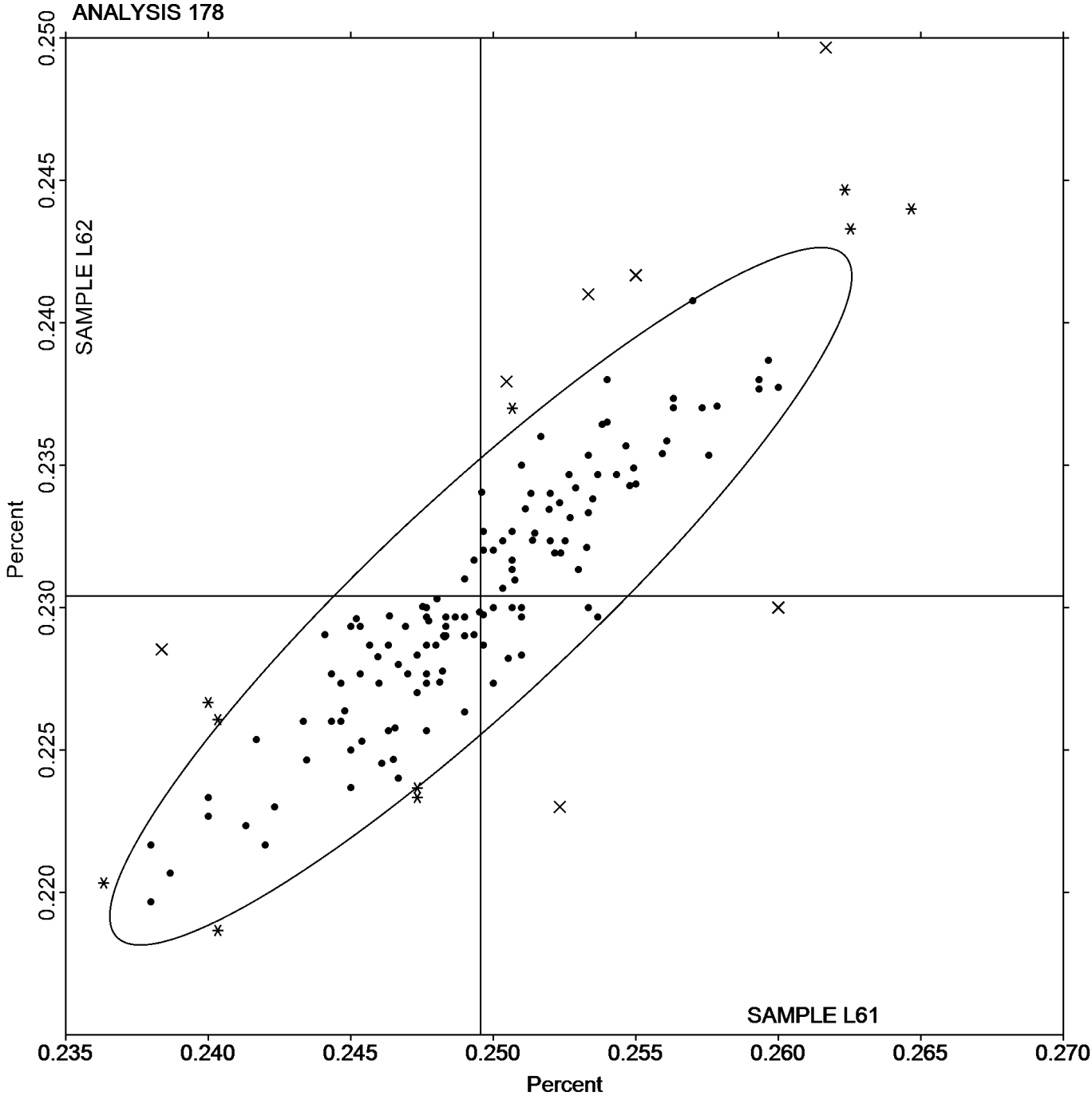
NHUBQE (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample L62.

RPYFW3 (X) - Data for sample L62 are high.

UENG2C (X) - Data for both samples are low. Possible Systematic Error.

SAMPLE L61
0.2496 Percent

SAMPLE L62
0.2304 Percent



		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
23F78F		0.0290	0.0009	0.61	0.0290	0.0005	0.32	OE
24URN6		0.0285	0.0004	0.28	0.0286	0.0001	0.04	IC
2AEGXZ		0.0291	0.0010	0.70	0.0298	0.0013	0.90	OE
2BPRYQ		0.0287	0.0006	0.42	0.0296	0.0010	0.71	WD
2CNZ29	X	0.0470	0.0189	13.34	0.0460	0.0175	12.13	XX
2JXZ8Y	X	0.0333	0.0052	3.67	0.0330	0.0045	3.10	GD
2MMRT9		0.0267	-0.0014	-1.02	0.0275	-0.0010	-0.70	OE
2NZEBM		0.0267	-0.0014	-0.99	0.0275	-0.0010	-0.70	OE
2UDW7B		0.0280	-0.0001	-0.10	0.0288	0.0003	0.20	IC
2VXVXL		0.0295	0.0014	0.96	0.0296	0.0011	0.74	OE
2XE3HV	X	0.0157	-0.0125	-8.82	0.0163	-0.0122	-8.48	OE
34M4TW		0.0274	-0.0007	-0.50	0.0274	-0.0011	-0.79	OE
37GPP9		0.0283	0.0001	0.09	0.0286	0.0001	0.04	AE
3E8E69	X	0.0293	0.0011	0.80	0.0312	0.0027	1.87	OE
3P6Y7V		0.0320	0.0039	2.73	0.0323	0.0038	2.64	XX
3Y9L6Z		0.0307	0.0025	1.79	0.0310	0.0025	1.71	OE
468WTY		0.0278	-0.0003	-0.22	0.0282	-0.0004	-0.26	AA
46N9B4		0.0278	-0.0004	-0.26	0.0283	-0.0003	-0.19	IC
4BJLRZ	X	0.0336	0.0054	3.84	0.0339	0.0054	3.72	OE
4DZ6EP	X	0.0217	-0.0065	-4.58	0.0243	-0.0042	-2.92	OE
4KBHQ2		0.0295	0.0014	0.96	0.0303	0.0018	1.25	OE
4NTTRC		0.0307	0.0025	1.79	0.0308	0.0023	1.59	OE
4VQNBH		0.0288	0.0006	0.44	0.0298	0.0012	0.85	OE
6MWTCC		0.0297	0.0015	1.08	0.0300	0.0015	1.01	OE
6WWU8X		0.0278	-0.0003	-0.24	0.0278	-0.0007	-0.51	OE
73X36J		0.0275	-0.0006	-0.43	0.0283	-0.0002	-0.14	OE
7HMTPD		0.0281	0.0000	-0.03	0.0281	-0.0004	-0.31	OE
7MAP94		0.0307	0.0025	1.79	0.0307	0.0021	1.48	OE
7WULRB		0.0300	0.0019	1.32	0.0302	0.0016	1.13	OE
84KKK4		0.0278	-0.0003	-0.22	0.0285	-0.0001	-0.05	IC
89EJVT		0.0277	-0.0005	-0.33	0.0283	-0.0002	-0.17	OE
8GGVL3		0.0297	0.0015	1.08	0.0304	0.0018	1.27	OE
8N89VV		0.0268	-0.0013	-0.92	0.0271	-0.0014	-0.98	AE
8NAFDW		0.0280	-0.0001	-0.10	0.0283	-0.0002	-0.14	OE
8QQD42	*	0.0287	0.0005	0.37	0.0277	-0.0009	-0.61	OE
9832FU		0.0270	-0.0011	-0.81	0.0280	-0.0005	-0.38	IC
987V7E		0.0273	-0.0008	-0.57	0.0277	-0.0009	-0.61	OE
99ZWBN		0.0289	0.0007	0.51	0.0294	0.0008	0.57	OE
9DM6LB		0.0272	-0.0010	-0.69	0.0274	-0.0011	-0.77	IC
9GPA8W	X	0.0332	0.0051	3.60	0.0325	0.0039	2.73	OE
9KRGHE		0.0282	0.0001	0.05	0.0284	-0.0001	-0.08	OE
9N7M7V	X	0.0230	-0.0051	-3.63	0.0237	-0.0049	-3.39	OE
9Z3MQL		0.0287	0.0005	0.37	0.0290	0.0005	0.32	OE
9ZLNGV		0.0291	0.0010	0.70	0.0298	0.0013	0.90	OE
A2VHYL		0.0305	0.0024	1.69	0.0309	0.0024	1.66	OE
A3TVJT	X	0.0330	0.0049	3.44	0.0327	0.0041	2.87	OE
ACUJKX	X	0.0167	-0.0115	-8.11	0.0170	-0.0115	-8.02	GD

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
AEDM33		0.0274	-0.0007	-0.50	0.0277	-0.0009	-0.61	OE
AGU8GD		0.0290	0.0009	0.61	0.0293	0.0008	0.55	XX
APMF34		0.0294	0.0013	0.89	0.0293	0.0008	0.55	OE
AUYKFP		0.0264	-0.0017	-1.21	0.0269	-0.0016	-1.12	IC
B3LYLE		0.0269	-0.0012	-0.88	0.0268	-0.0017	-1.21	OE
B6CX2X		0.0270	-0.0011	-0.81	0.0273	-0.0012	-0.84	OE
B8PMWA	*	0.0270	-0.0011	-0.81	0.0320	0.0035	2.40	WD
B8XQ3T		0.0280	-0.0001	-0.10	0.0287	0.0001	0.09	OE
BLWEZ9		0.0292	0.0010	0.73	0.0293	0.0007	0.50	OE
BMDUM3		0.0285	0.0004	0.25	0.0287	0.0001	0.09	GD
BQ6VZV		0.0268	-0.0013	-0.95	0.0272	-0.0013	-0.93	IC
BT9RJY		0.0260	-0.0021	-1.51	0.0267	-0.0019	-1.30	OE
C72A86		0.0249	-0.0032	-2.27	0.0255	-0.0030	-2.11	OE
CAAQ8T	*	0.0243	-0.0039	-2.74	0.0245	-0.0040	-2.78	XX
CF2ZGQ		0.0270	-0.0011	-0.81	0.0280	-0.0005	-0.38	IC
CNY7AD		0.0269	-0.0013	-0.90	0.0268	-0.0017	-1.21	IC
CRJ6UM		0.0260	-0.0021	-1.51	0.0263	-0.0022	-1.53	OE
D2MGNV		0.0274	-0.0007	-0.50	0.0279	-0.0006	-0.45	AE
D4NYUX	X	0.0230	-0.0051	-3.63	0.0237	-0.0049	-3.39	GD
DE43LP		0.0283	0.0002	0.14	0.0290	0.0005	0.32	IC
DFLDYG		0.0251	-0.0030	-2.15	0.0251	-0.0035	-2.41	IC
DMY8FQ		0.0276	-0.0006	-0.41	0.0280	-0.0006	-0.40	IC
DTNKGE		0.0274	-0.0007	-0.50	0.0275	-0.0011	-0.75	XX
DXGMHT		0.0275	-0.0006	-0.45	0.0277	-0.0008	-0.58	IC
DZ2G48	X	0.0303	0.0022	1.55	0.0287	0.0002	0.11	GD
ET3FD7		0.0272	-0.0009	-0.64	0.0274	-0.0011	-0.77	OE
F8F43U		0.0278	-0.0003	-0.24	0.0279	-0.0006	-0.42	OE
FBKH6R		0.0292	0.0011	0.75	0.0299	0.0014	0.97	OE
FGETFW		0.0275	-0.0006	-0.43	0.0279	-0.0006	-0.42	OE
FJVC7T		0.0287	0.0006	0.40	0.0288	0.0002	0.16	OE
FK6J6E		0.0284	0.0003	0.21	0.0293	0.0007	0.50	OE
FWHJ29		0.0268	-0.0013	-0.95	0.0265	-0.0021	-1.44	OE
GMMH4N	X	0.0333	0.0052	3.67	0.0337	0.0051	3.56	OE
GNWM47	X	0.0227	-0.0055	-3.87	0.0233	-0.0052	-3.62	GD
GTVRJX		0.0310	0.0029	2.02	0.0310	0.0025	1.71	OE
GUAU73		0.0280	-0.0001	-0.10	0.0288	0.0003	0.20	IC
GY3YXL		0.0293	0.0012	0.83	0.0299	0.0013	0.93	OE
H2JA9Q		0.0288	0.0007	0.47	0.0295	0.0010	0.69	OE
H2PRJN		0.0278	-0.0003	-0.22	0.0285	-0.0001	-0.05	XX
H3GBF3	X	0.0266	-0.0016	-1.11	0.0284	-0.0001	-0.07	OE
HHNP26		0.0270	-0.0011	-0.81	0.0270	-0.0015	-1.07	IC
HJFNF4	X	0.0567	0.0285	20.17	0.0587	0.0301	20.93	OE
HNZZMR		0.0256	-0.0025	-1.80	0.0255	-0.0030	-2.09	XX
JBA6Q7		0.0280	-0.0001	-0.10	0.0287	0.0001	0.09	IC
JD2F7K	X	0.0213	-0.0068	-4.81	0.0207	-0.0079	-5.47	WD
K9WTNV		0.0306	0.0025	1.76	0.0310	0.0024	1.69	XX
KH9E4V		0.0281	-0.0001	-0.05	0.0284	-0.0001	-0.07	OE

		Sample L61			Sample L62			
WebCode	Data Flag	Lab Mean	Diff. from Grand Mean	CPV	Lab Mean	Diff. from Grand Mean	CPV	Method
KHA62D		0.0283	0.0002	0.14	0.0287	0.0002	0.13	OE
KLZB8H	*	0.0320	0.0039	2.73	0.0327	0.0041	2.87	XX
KNUJNJ		0.0280	-0.0001	-0.10	0.0283	-0.0003	-0.19	OE
KTVDU2		0.0273	-0.0008	-0.57	0.0273	-0.0012	-0.84	IC
LA664B		0.0286	0.0005	0.35	0.0293	0.0008	0.55	OE
LMMDAM		0.0279	-0.0002	-0.17	0.0291	0.0005	0.37	OE
LNA4P9		0.0283	0.0001	0.09	0.0281	-0.0004	-0.31	OE
LQB4YD		0.0310	0.0028	2.00	0.0311	0.0025	1.75	OE
LTBWEY		0.0280	-0.0001	-0.10	0.0285	0.0000	-0.01	DR
M2EHP7		0.0269	-0.0012	-0.87	0.0273	-0.0012	-0.85	XX
MAKF49	*	0.0270	-0.0011	-0.81	0.0283	-0.0002	-0.14	IC
MCLAFD		0.0279	-0.0002	-0.15	0.0285	-0.0001	-0.05	OE
MM7HFT		0.0293	0.0012	0.84	0.0300	0.0015	1.01	OE
MRGPNK		0.0268	-0.0013	-0.95	0.0270	-0.0015	-1.05	OE
MWT9A8		0.0282	0.0001	0.07	0.0287	0.0001	0.09	OE
MYJJ3L		0.0284	0.0003	0.18	0.0288	0.0003	0.20	IC
N6QTFE		0.0298	0.0017	1.20	0.0303	0.0017	1.21	OE
N9P4CE		0.0300	0.0019	1.32	0.0303	0.0018	1.25	OE
NBUFRA		0.0300	0.0019	1.32	0.0303	0.0018	1.25	XX
NHUBQE		0.0287	0.0005	0.37	0.0297	0.0011	0.78	GD
NPHUBH		0.0281	-0.0001	-0.05	0.0279	-0.0006	-0.42	OE
NXRN9Q		0.0270	-0.0011	-0.81	0.0270	-0.0015	-1.07	OE
PBCLQZ		0.0243	-0.0038	-2.72	0.0251	-0.0035	-2.41	OE
PLEDHK		0.0281	-0.0001	-0.05	0.0290	0.0005	0.34	OE
PPVMPW		0.0290	0.0009	0.61	0.0297	0.0011	0.78	XX
PRQE3G		0.0285	0.0004	0.28	0.0281	-0.0004	-0.31	OE
QDEKEH		0.0277	-0.0005	-0.33	0.0281	-0.0004	-0.28	OE
QLQMRW		0.0293	0.0012	0.84	0.0300	0.0015	1.01	OE
R86LK6		0.0286	0.0005	0.33	0.0289	0.0004	0.26	OE
RB2TPU		0.0270	-0.0011	-0.81	0.0277	-0.0009	-0.61	XX
RMTEWJ		0.0285	0.0004	0.28	0.0287	0.0002	0.11	OE
RPYFW3		0.0305	0.0024	1.69	0.0303	0.0018	1.22	OE
RVC34D		0.0264	-0.0017	-1.21	0.0273	-0.0012	-0.86	IC
RXQCQB		0.0287	0.0005	0.37	0.0293	0.0008	0.55	OE
T3EGRE		0.0274	-0.0007	-0.50	0.0279	-0.0006	-0.45	OE
TDXVVG		0.0279	-0.0002	-0.15	0.0287	0.0001	0.09	OE
TWDJM2		0.0284	0.0003	0.18	0.0289	0.0004	0.27	OE
U69UJH		0.0270	-0.0011	-0.81	0.0270	-0.0015	-1.07	OE
UENG2C	*	0.0242	-0.0039	-2.79	0.0247	-0.0039	-2.69	OE
UF4WVY		0.0286	0.0004	0.30	0.0288	0.0002	0.16	XX
UHQA23		0.0276	-0.0005	-0.38	0.0279	-0.0006	-0.45	WD
UQ7JVW		0.0283	0.0002	0.14	0.0287	0.0001	0.09	OE
UYYPFW		0.0287	0.0005	0.37	0.0299	0.0013	0.92	AE
UZUVR4		0.0280	-0.0001	-0.10	0.0290	0.0005	0.32	DR
V24NJ3		0.0293	0.0012	0.84	0.0295	0.0010	0.69	XX
V6ZTUG		0.0280	-0.0001	-0.10	0.0290	0.0005	0.32	OE
V7WWEW		0.0284	0.0003	0.18	0.0289	0.0004	0.27	OE

Fasteners and Metals Interlaboratory Testing Program

Analysis 179

Carbon & Low Alloy Steel, Element #10
VANADIUM (V)

WebCode	Data Flag	Sample L61 Lab Mean	Sample L61 Diff. from Grand Mean	Sample L61 CPV	Sample L62 Lab Mean	Sample L62 Diff. from Grand Mean	Sample L62 CPV	Method
VDKEER		0.0265	-0.0017	-1.17	0.0272	-0.0014	-0.94	OE
VDQLXZ		0.0295	0.0014	0.96	0.0296	0.0011	0.74	WD
VKHV2Q		0.0282	0.0000	0.02	0.0285	0.0000	-0.03	OE
W2WDU6		0.0279	-0.0002	-0.17	0.0283	-0.0003	-0.19	IC
W6C4XE		0.0283	0.0001	0.09	0.0285	0.0000	-0.03	OE
WPLJPC		0.0297	0.0015	1.08	0.0300	0.0015	1.01	OE
WVFFE3		0.0257	-0.0024	-1.70	0.0256	-0.0030	-2.07	OE
XLJF94		0.0263	-0.0018	-1.28	0.0267	-0.0018	-1.28	OE
YBC3L9		0.0274	-0.0007	-0.52	0.0278	-0.0007	-0.51	OE
YL8DRU		0.0271	-0.0010	-0.71	0.0271	-0.0014	-0.98	OE
YQAEM6	X	0.0327	0.0045	3.20	0.0310	0.0025	1.71	XX
YYRZJF		0.0280	-0.0001	-0.10	0.0280	-0.0005	-0.38	OE
Z7U2Z2		0.0298	0.0017	1.17	0.0300	0.0015	1.01	OE
ZQP9D6		0.0296	0.0014	1.01	0.0303	0.0017	1.20	OE
ZRZBY4		0.0300	0.0019	1.32	0.0300	0.0015	1.01	OE

Summary Statistics

	Sample L61		Sample L62	
Grand Means	0.0281	Percent	0.0285	Percent
Stnd Dev Btwn Labs	0.0014	Percent	0.0014	Percent

Samples L61, L62 : AISI 4140, AISI 4140

Statistics based on 136 of 156 reporting participants

Key to Method Codes Reported by Participants

AA	Spectrometry - Atomic Absorption (AAS)	AE	Spectrometry - Atomic Emission (AES)
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 #179

2CNZ29 (X) - Data for both samples are high. Possible Systematic Error.

2JXZ8Y (X) - Data for both samples are high. Possible Systematic Error.

2XE3HV (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.

3E8E69 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L62.

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

4DZ6EP (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.

9GPA8W (X) - Data for sample L61 are high. Inconsistent within the determinations of both samples.

9N7M7V (X) - Data for both samples are low. Possible Systematic Error.

A3TVJT (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample L62.

ACUJKX (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample L62.

D4NYUX (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample L61.

DZ2G48 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample L62.

GMMH4N (X) - Data for both samples are high. Possible Systematic Error.

GNWM47 (X) - Data for both samples are low. Possible Systematic Error.

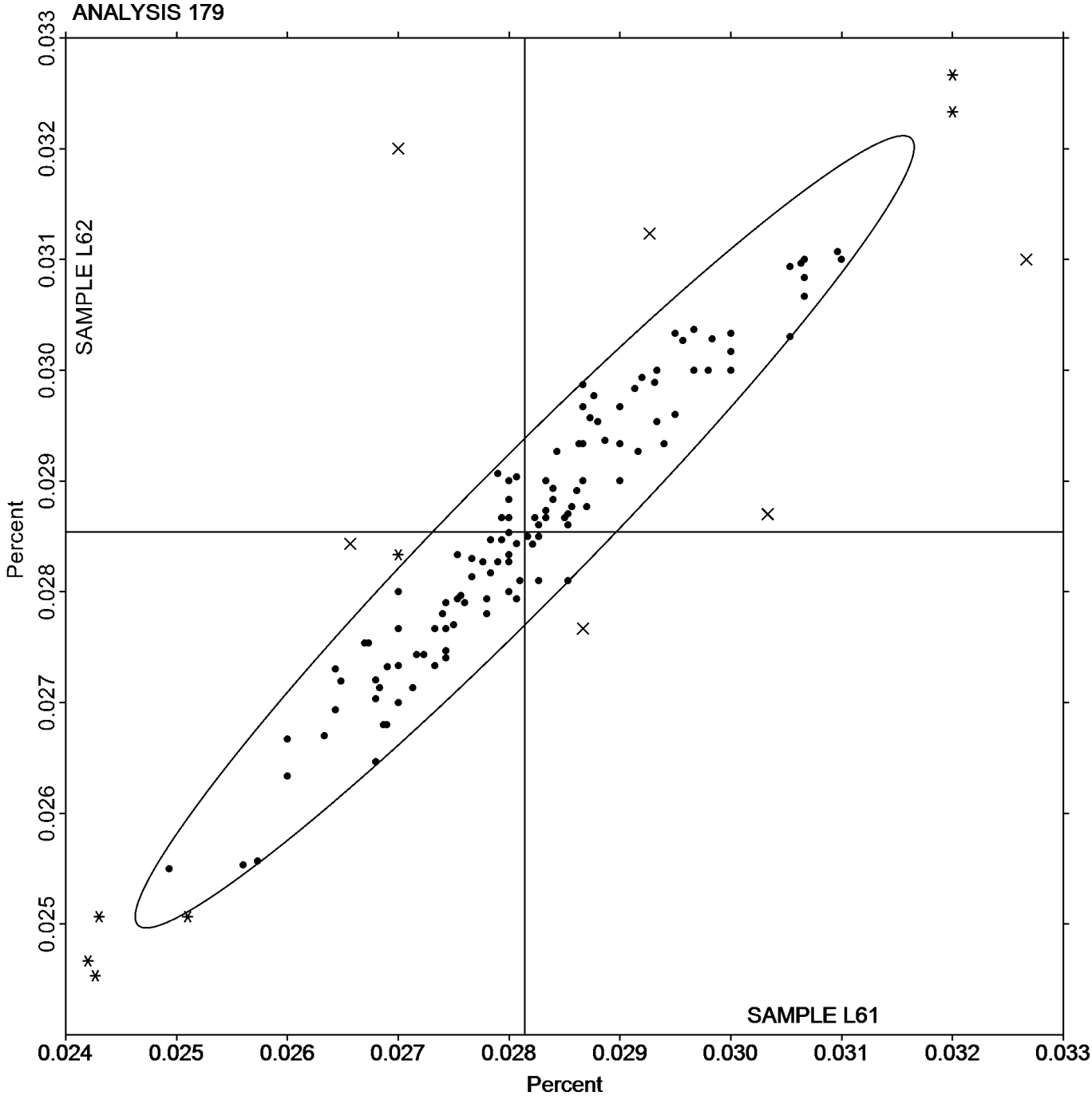
H3GBF3 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.

HJFNF4 (X) - Data for both samples are very high. Possible Systematic Error.

JD2F7K (X) - Data for both samples are low. Possible Systematic Error.

YQAEM6 (X) - Data for sample L61 are high. Inconsistent within the determinations of both samples.

SAMPLE L61	SAMPLE L62
0.0281 Percent	0.0285 Percent



-End of Report-

