

Wine Industry Interlaboratory Program

Summary Report #049- Spring 2015

Introduction to the Wine Program

Explanation of Tables and Definitions of Terms

Analysis	Analysis Name
<u>901</u>	<u>Ethanol (% of volume)</u>
<u>902</u>	<u>Total Sulfur Dioxide</u>
<u>903</u>	<u>Free Sulfur Dioxide</u>
<u>904</u>	<u>Titrateable Acidity</u>
<u>905</u>	<u>Volatile Acidity</u>
<u>906</u>	<u>Specific Gravity</u>
<u>907</u>	<u>pH</u>
<u>908</u>	<u>Residual Sugar</u>
<u>909</u>	<u>L-Malic Acid</u>
<u>910</u>	<u>Glucose + Fructose</u>
<u>911</u>	<u>Copper Content</u>
<u>912</u>	<u>Potassium Content</u>
<u>915</u>	<u>A420nm (1cm path)</u>
<u>916</u>	<u>A520nm (1cm path)</u>
<u>950</u>	<u>Research Property: Turbidity</u>
<u>951</u>	<u>Research Property: Methanol Content</u>
<u>952</u>	<u>Research: Ethanol by Dist. / Density Method</u>

About the Wine Industry Interlaboratory Program

This interlaboratory survey was administered by Collaborative Testing Services, Inc. (CTS) through an agreement with The American Society for Enology and Viticulture (ASEV) with technical assistance provided by the Laboratory Proficiency Ad Hoc Committee. The purpose of the survey was to evaluate laboratory performance and assess the performance of the industry with respect to quality assurance testing conducted on commercially produced wine through an on-going interlaboratory testing program. Two bottles of differing wines were supplied to participant laboratories. The samples for each type of wine were chosen consecutively from a single production run, to minimize variation between bottles. Participating laboratories were asked to analyze the samples' ten properties in accordance with their normal laboratory procedures and return the results and methodology information to CTS.

About CTS

Founded in 1971, Collaborative Testing Services, Inc. (CTS) is a privately - owned company that specializes in interlaboratory tests for a variety of sectors: including rubber, plastics, fasteners and metals, containerboard, paper, wine and color, as well as proficiency tests for forensic laboratories. All of the tests are designed to assist organizations in achieving and maintaining quality assurance objectives. Labs from the U.S., as well as more than 80 countries, currently participate in the CTS programs.

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Key for Web Summary Report (Page 1 of 2)

WebCode	Assigned laboratory identification number (temporary) used to ensure lab confidentiality while permitting a lab to locate its data in the Wine Web Summary Report published on the CTS web site. The WebCode for each analysis can be found in the Performance Analysis Report mailed to each participant.
Lab Mean	The average of the test results obtained by the participant.
Grand Mean	The average of the LAB MEANS for all included participants. Laboratories flagged with an X or an M (see DATA FLAG column) are excluded from the GRAND MEAN.
Difference from Grand Mean	The difference of the LAB MEAN from the GRAND MEAN.
Between-Lab Standard Deviation	An indication of the precision of measurement between the laboratories. The greater the spread of the LAB MEANS about the GRAND MEAN, the larger the BETWEEN-LAB STANDARD DEVIATION (and vice versa).
Comparative Performance Value	An indication of how well a laboratory's results agree with the other participants. The CPV is a ratio indicating the number of standard deviations from the GRAND MEAN. The closer a laboratory's COMPARATIVE PERFORMANCE VALUE is to zero, the more consistent its results are with the other participants' data (and vice versa). The critical value for each CPV will vary depending on the number of labs participating in a test.
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:

<u>DATA FLAG</u>	<u>STATISTICALLY INCLUDED/EXCLUDED</u>	<u>ACTION REQUIRED</u>
*	INCLUDED	CAUTION - review testing procedure and monitor future results. Results fall outside 95% ellipse but within a 99% ellipse that is calculated but not drawn.
X	EXCLUDED	STOP - immediate review of data and/or testing procedure is required. Results fall outside the 99% ellipse. See specific notes following each table for more information on why the data is excluded.
M	EXCLUDED	PROCEED - lab was unable to report data for one sample.

Graph - For each laboratory, the LAB MEAN for the first sample (x-axis) is plotted against the LAB MEAN for the second sample (y-axis) with each point representing a laboratory. The horizontal and vertical cross-hairs are the GRAND MEANS for each sample. When 20 or more laboratories are in the statistics, an ellipse is also drawn so that 95% of the time a randomly selected laboratory will be included inside the ellipse. Plotted data flags are explained above.

Common Problems Highlighted in Footnotes

1. **Extreme data** - The laboratory's results for one or both samples are so inconsistent with those of the other participants that the lab mean(s) fall outside the plot. The participant is advised to immediately review his data and/or testing procedure.
2. **Systematic bias** - The laboratory's results are either consistently high or low for both samples when compared to the other participants (the plotted point falls near the top or bottom of the ellipse). This indicates that the participant is performing the test with a constant bias. Causes of systematic errors include improper calibration, the particular make/model of equipment or a modification to the testing procedure.
3. **Inconsistency in testing between samples/sample sets** - The laboratory's results indicate that there are differences in the way the two samples tested (the plotted point falls to the side of the ellipse). This type of error may be attributed to the analyst deviating from the procedure when testing one of the samples or a material interaction occurrence with the instrument or room conditions. The inconsistency is reflected in the CPVs for the two samples, such as a +1.5 CPV for sample A and a -2.2 CPV for sample B. CTS also will specify if the laboratory's data for one sample are high/low compared to the other participants. If this inconsistency is slight, the lab's plotted point will be an * that falls on the edge of the ellipse.
4. **Inconsistency in testing within a sample** - The laboratory's within-lab standard deviation for a specified sample is high when compared to the other participants, often causing the lab's plotted point to fall outside of the ellipse.

Labs flagged with an * are not typically included in the footnotes of a data table. These labs may locate their position in the control ellipse and use the definitions above to help identify the type of testing error. An * should serve as a caution flag, a "yellow light", to a lab. If this error is repeated in future rounds, a lab may need to stop and review its testing procedures. The initial data flag is not cause for alarm. Interlaboratory tests conducted at regular intervals permit a lab to recognize trends in testing.



ASEV-CTS Wine Industry Interlaboratory Testing Program

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Analysis 901

Ethanol (% of volume)

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2Y6AHM	X	8.300	-0.028	-0.60	8.650	0.129	2.38
2ZDGLF		8.385	0.057	1.20	8.600	0.079	1.45
3LC6QG	*	8.460	0.132	2.79	8.680	0.159	2.93
3N2EZH		8.400	0.072	1.52	8.600	0.079	1.45
6MWVQC		8.400	0.072	1.52	8.590	0.069	1.27
6XDKPH		8.360	0.032	0.67	8.540	0.019	0.35
76RNBB		8.330	0.002	0.04	8.520	-0.001	-0.02
7L2FDF		8.410	0.082	1.73	8.610	0.089	1.64
7R6EN6		8.285	-0.043	-0.92	8.490	-0.031	-0.57
86PGK3		8.350	0.022	0.46	8.525	0.004	0.07
8J94UZ		8.340	0.012	0.25	8.540	0.019	0.35
93ZAZ6		8.370	0.042	0.88	8.545	0.024	0.44
9LRF8W		8.355	0.027	0.56	8.555	0.034	0.63
9LRHVF		8.330	0.002	0.04	8.510	-0.011	-0.20
9PQQ4V	X	8.075	-0.253	-5.36	8.250	-0.271	-4.99
9PQTQE		8.345	0.017	0.35	8.540	0.019	0.35
9PRQ2B		8.340	0.012	0.25	8.525	0.004	0.07
9RFZBC		8.365	0.037	0.78	8.560	0.039	0.72
B8L2ZX		8.245	-0.083	-1.76	8.450	-0.071	-1.31
BJWEFD	X	8.545	0.217	4.58	8.630	0.109	2.01
BW4LWV	X	8.475	0.147	3.10	8.550	0.029	0.53
CTKRU3		8.265	-0.063	-1.34	8.460	-0.061	-1.12
D6Q2Y6		8.280	-0.048	-1.02	8.460	-0.061	-1.12
D6RWKV		8.355	0.027	0.56	8.555	0.034	0.63
DHXAGM		8.410	0.082	1.73	8.600	0.079	1.45



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Analysis 901

Ethanol (% of volume)

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
E6L2DV		8.375	0.047	0.99	8.600	0.079	1.45
EDECL6		8.315	-0.013	-0.28	8.500	-0.021	-0.39
EKZ9PU		8.345	0.017	0.35	8.545	0.024	0.44
F2JN7V		8.355	0.027	0.56	8.555	0.034	0.63
FZN629		8.300	-0.028	-0.60	8.500	-0.021	-0.39
G82D6V		8.355	0.027	0.56	8.540	0.019	0.35
GT6WFX		8.360	0.032	0.67	8.580	0.059	1.09
H6RNFR		8.365	0.037	0.78	8.555	0.034	0.63
HLHTLZ		8.370	0.042	0.88	8.570	0.049	0.90
HUDTZT		8.345	0.017	0.35	8.540	0.019	0.35
J67APU		8.265	-0.063	-1.34	8.460	-0.061	-1.12
JHDKUV		8.305	-0.023	-0.49	8.500	-0.021	-0.39
K976L2		8.235	-0.093	-1.97	8.415	-0.106	-1.95
LCYLDL		8.300	-0.028	-0.60	8.480	-0.041	-0.76
LQZX9K		8.325	-0.003	-0.07	8.510	-0.011	-0.20
M9FQAU	*	8.250	-0.078	-1.66	8.400	-0.121	-2.23
MNTYDJ		8.280	-0.048	-1.02	8.460	-0.061	-1.12
MT68DM		8.360	0.032	0.67	8.545	0.024	0.44
NBDUCZ		8.280	-0.048	-1.02	8.450	-0.071	-1.31
NCDRPG		8.310	-0.018	-0.39	8.540	0.019	0.35
PANK6K		8.255	-0.073	-1.55	8.445	-0.076	-1.40
PLUXYQ		8.315	-0.013	-0.28	8.480	-0.041	-0.76
QLB9DP		8.380	0.052	1.09	8.590	0.069	1.27
R3DBN3		8.320	-0.008	-0.18	8.490	-0.031	-0.57
R3DBQM	X	8.500	0.172	3.63	8.400	-0.121	-2.23



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Analysis 901
Ethanol (% of volume)

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
R6G7AQ		8.370	0.042	0.88	8.570	0.049	0.90
RAEPCN	X	8.100	-0.228	-4.83	8.400	-0.121	-2.23
RGD8NF		8.355	0.027	0.56	8.580	0.059	1.09
THZ96M		8.320	-0.008	-0.18	8.515	-0.006	-0.11
THZBUR		8.310	-0.018	-0.39	8.490	-0.031	-0.57
TKCQNT		8.270	-0.058	-1.23	8.455	-0.066	-1.22
TRAF8H		8.360	0.032	0.67	8.540	0.019	0.35
U4X2QH		8.335	0.007	0.14	8.515	-0.006	-0.11
UGNVZQ	*	8.280	-0.048	-1.02	8.510	-0.011	-0.20
UTZZCT		8.260	-0.068	-1.45	8.430	-0.091	-1.68
UY38TG		8.310	-0.018	-0.39	8.510	-0.011	-0.20
V7J38Q	*	8.260	-0.068	-1.45	8.480	-0.041	-0.76
W3HJKH	X	8.280	-0.048	-1.02	8.810	0.289	5.32
W72EMB		8.325	-0.003	-0.07	8.485	-0.036	-0.66
WF32DL		8.315	-0.013	-0.28	8.510	-0.011	-0.20
Y3QDDN		8.285	-0.043	-0.92	8.465	-0.056	-1.03
YEJT3P		8.300	-0.028	-0.60	8.500	-0.021	-0.39
Z7LLYA	X	8.010	-0.318	-6.74	8.140	-0.381	-7.02

Grand Means		Summary Statistics	
	8.3283 percent		8.5210 percent
Std Dev Btwn Labs			
	0.0473 percent		0.0543 percent
Statistics based on 60 of 68 reporting participants			

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel



Analysis 901
Ethanol (% of volume)

Comments on assigned Data Flags

2Y6AHM (X) - Inconsistent in testing between samples and inconsistent within the determinations for both samples.

9PQQ4V (X) - Data for both samples are low. Possible Systematic Error.

BJWEFD (X) - Inconsistent in testing between samples, data for Sample SA95 are high.

BW4LWV (X) - Inconsistent in testing between samples, data for Sample SA95 are high. Also inconsistent in testing within the determinations for Sample SA96.

R3DBQM (X) - Inconsistent in testing between samples, data for Sample SA95 are high.

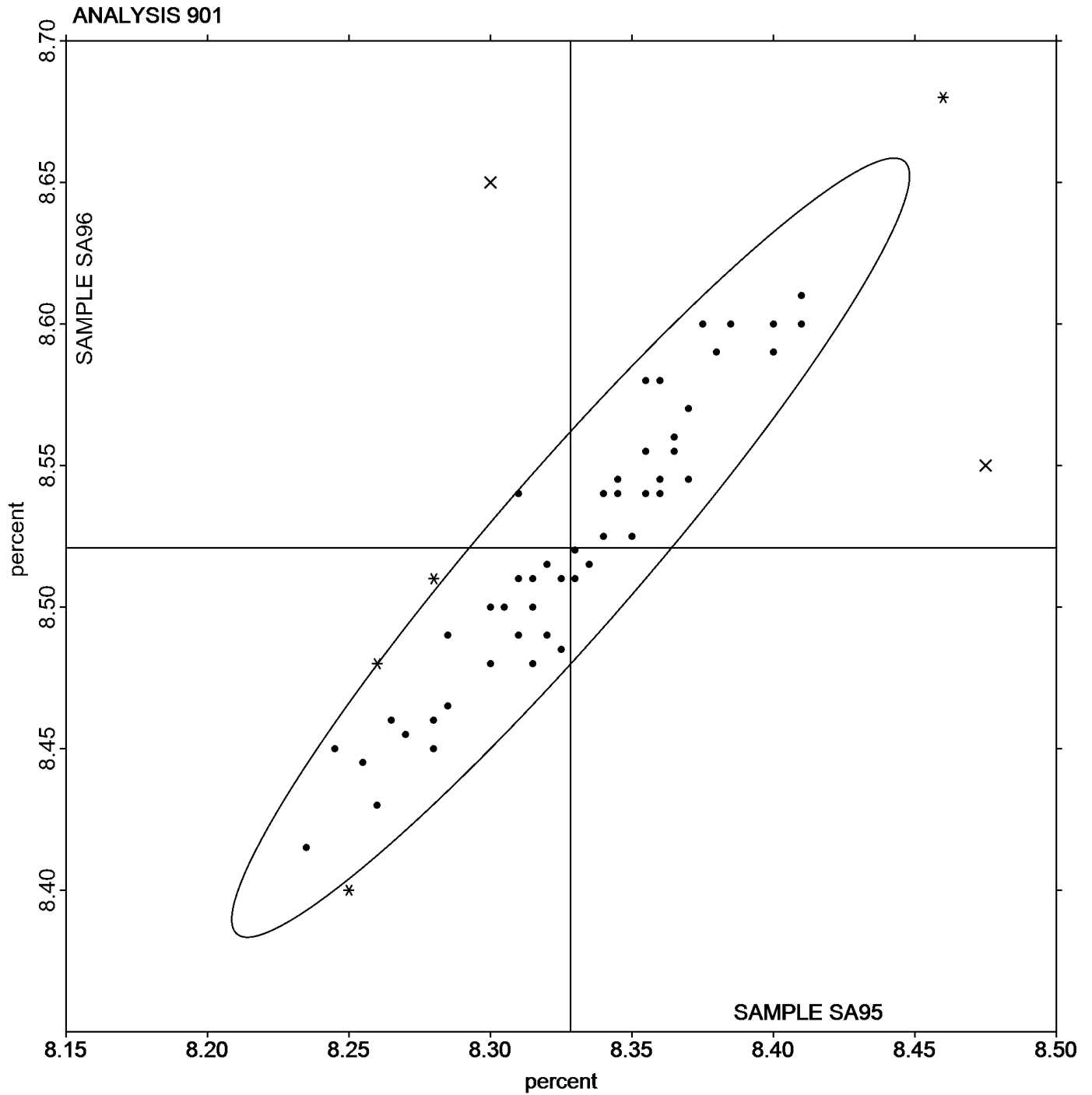
RAEPCN (X) - Inconsistent in testing between samples, data for Sample SA95 are low.

W3HJKH (X) - Inconsistent in testing between samples, data for Sample SA96 are high. Also inconsistent in testing within the determinations for both sample sets.

Z7LLYA (X) - Data for both samples are low.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA95 <i>White Zinfandel</i>			Sample SA96 <i>White Zinfandel</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Please specify method used	8.245	0.000	-0.083	8.450	0.000	-0.071	1	1
Gas Chromatography Method	8.410	0.000	0.082	8.610	0.000	0.089	1	2
Near Infrared Method	8.330	0.037	0.002	8.522	0.041	0.001	40	44
Dist. / Density Method	8.309	0.020	-0.019	8.499	0.034	-0.022	5	8
FTIR	8.337	0.061	0.009	8.531	0.075	0.010	9	11





ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #049

Analysis 902

Spring 2015

Total Sulfur Dioxide

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2ZDGLF		163.5	-6.6	-0.60	173.5	0.0	0.00
3LC6QG		186.5	16.4	1.49	197.0	23.5	1.91
3N2EZH		177.0	6.9	0.63	173.5	0.0	0.00
6MWVQC		173.0	2.9	0.27	177.0	3.5	0.29
6XDKPH		173.5	3.4	0.31	178.0	4.5	0.37
76RNBB		174.0	3.9	0.36	181.0	7.5	0.61
7L2FDF		164.0	-6.1	-0.55	170.0	-3.5	-0.28
7R6EN6		174.0	3.9	0.36	174.0	0.5	0.04
86PGK3		155.0	-15.1	-1.37	159.0	-14.5	-1.18
8J94UZ	*	198.0	27.9	2.54	204.0	30.5	2.48
93ZAZ6		177.0	6.9	0.63	178.5	5.0	0.41
9LRF8W		168.5	-1.6	-0.14	172.0	-1.5	-0.12
9LRHVF		173.0	2.9	0.27	179.0	5.5	0.45
9PQQ4V		175.2	5.1	0.46	172.2	-1.3	-0.11
9PQTQE		178.0	7.9	0.72	179.5	6.0	0.49
9PRQ2B		171.5	1.4	0.13	173.5	0.0	0.00
9RFZBC	X	131.5	-38.6	-3.50	97.0	-76.5	-6.22
B8L2ZX		156.0	-14.1	-1.28	154.0	-19.5	-1.58
BJWEFD		182.5	12.4	1.13	185.5	12.0	0.98
BW4LWV	*	146.5	-23.6	-2.14	142.0	-31.5	-2.56
CTKRU3		171.0	0.9	0.09	184.0	10.5	0.86
D6Q2Y6		183.0	12.9	1.18	183.0	9.5	0.78
D6RWKV		170.0	-0.1	-0.01	176.0	2.5	0.21
DHXAGM		164.0	-6.1	-0.55	161.0	-12.5	-1.01
E6L2DV		187.0	16.9	1.54	188.0	14.5	1.18



ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #049
Spring 2015

Analysis 902 Total Sulfur Dioxide

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
EDECL6		155.5	-14.6	-1.32	160.5	-13.0	-1.06
EKZ9PU		168.0	-2.1	-0.19	173.0	-0.5	-0.04
F2JN7V		169.5	-0.6	-0.06	168.8	-4.7	-0.38
FZN629		179.5	9.4	0.86	186.0	12.5	1.02
G82D6V		181.5	11.4	1.04	184.0	10.5	0.86
GT6WFX		183.0	12.9	1.18	187.0	13.5	1.10
H6RNFR		187.5	17.4	1.58	190.5	17.0	1.39
HLHTLZ		189.0	18.9	1.72	197.5	24.0	1.95
HUDTZT		144.0	-26.1	-2.37	145.0	-28.5	-2.32
J67APU		172.0	1.9	0.18	171.5	-2.0	-0.16
JHDKUV		152.0	-18.1	-1.64	152.5	-21.0	-1.71
JRMMHG		166.0	-4.1	-0.37	178.5	5.0	0.41
K976L2		173.5	3.4	0.31	181.5	8.0	0.65
LCYLDL		164.0	-6.1	-0.55	169.0	-4.5	-0.36
LQZX9K		169.5	-0.6	-0.05	176.5	3.0	0.25
M9FQAU		175.0	4.9	0.45	179.0	5.5	0.45
MNTYDJ		179.0	8.9	0.81	184.5	11.0	0.90
MT68DM		170.5	0.4	0.04	170.5	-3.0	-0.24
NBDUCZ		161.5	-8.6	-0.78	167.0	-6.5	-0.53
NCDRPG		152.0	-18.1	-1.64	153.0	-20.5	-1.67
PANK6K		176.0	5.9	0.54	176.0	2.5	0.21
PLUXYQ		153.0	-17.1	-1.55	162.5	-11.0	-0.89
QLB9DP		184.0	13.9	1.27	185.0	11.5	0.94
R3DBN3		156.0	-14.1	-1.28	157.5	-16.0	-1.30
R3DBQM		180.0	9.9	0.90	180.0	6.5	0.53



Analysis 902
Total Sulfur Dioxide

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
R6G7AQ		166.5	-3.6	-0.32	164.5	-9.0	-0.73
RAEPCN		165.0	-5.1	-0.46	165.0	-8.5	-0.69
RGD8NF		169.0	-1.1	-0.10	173.5	0.0	0.00
THZ96M	X	214.5	44.4	4.04	217.5	44.0	3.58
THZBUR		151.5	-18.6	-1.69	154.0	-19.5	-1.58
TKCQNT	X	155.5	-14.6	-1.32	141.5	-32.0	-2.60
TRAF8H		164.8	-5.3	-0.48	168.0	-5.5	-0.45
U4X2QH	X	180.5	10.4	0.95	166.5	-7.0	-0.57
UGNVZQ		174.5	4.4	0.40	174.5	1.0	0.08
UTZZCT		164.0	-6.1	-0.55	169.5	-4.0	-0.32
UY38TG		164.0	-6.1	-0.55	160.5	-13.0	-1.06
V7J38Q	*	170.5	0.4	0.04	160.5	-13.0	-1.06
W3HJKH		173.5	3.4	0.31	186.0	12.5	1.02
W72EMB	X	132.4	-37.6	-3.42	160.9	-12.6	-1.02
WF32DL		159.5	-10.6	-0.96	167.5	-6.0	-0.49
Y3QDDN		181.0	10.9	0.99	188.0	14.5	1.18
YEJT3P		162.0	-8.1	-0.73	174.0	0.5	0.04
Z7LLYA		164.8	-5.3	-0.48	171.2	-2.3	-0.18

Grand Means		Summary Statistics	
	170.06 mg/L		173.47 mg/L
Std Dev Btwn Labs			
	11.01 mg/L		12.29 mg/L
Statistics based on 63 of 68 reporting participants			

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel



Analysis 902
Total Sulfur Dioxide

Comments on assigned Data Flags

9RFZBC (X) - Data for both samples are low. Also inconsistent in testing within the determinations for both samples.

THZ96M (X) - Data for both samples are high. Possible Systematic Error.

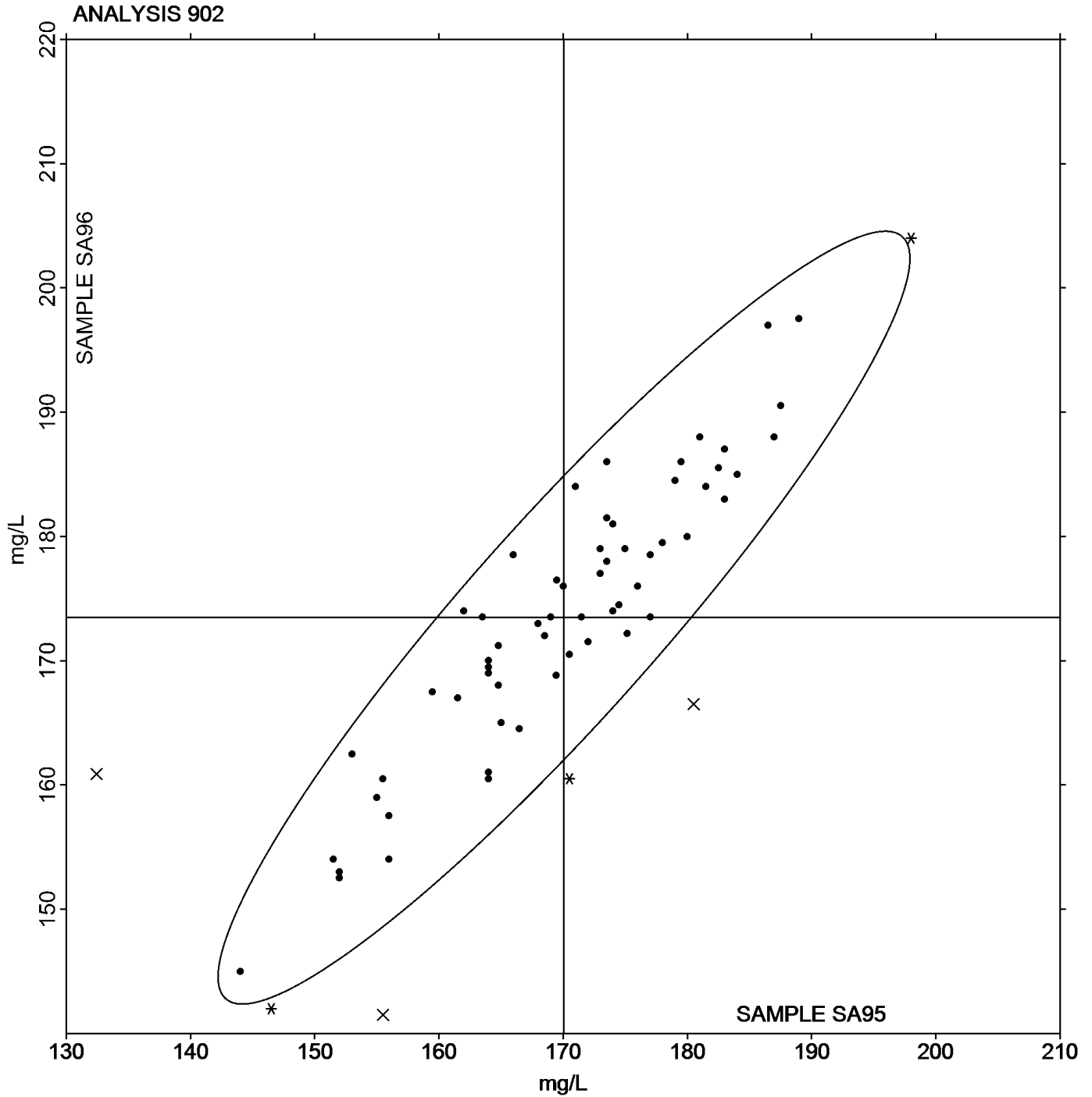
TKCQNT (X) - Inconsistent in testing between samples.

U4X2QH (X) - Inconsistent in testing between samples.

W72EMB (X) - Inconsistent in testing between samples, data for Sample SA96 are low. Also inconsistent in testing within the determinations for Sample SA96.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA95 <i>White Zinfandel</i>			Sample SA96 <i>White Zinfandel</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Please specify method used	144.0	0.0	-26.1	145.0	0.0	-28.5	1	1
Ripper Method	169.1	10.5	-0.9	172.9	11.5	-0.5	24	29
Aeration Oxidation (AO) Method	169.5	7.4	-0.6	173.7	5.8	0.2	11	11
Segmented Flow Analyzer	172.1	12.6	2.0	173.6	13.6	0.1	7	8
Enzymatic Method	171.5	10.6	1.4	176.8	11.0	3.3	2	4
Colorimetric Analyzer	169.1	6.3	-1.0	171.5	9.8	-2.0	5	5
FTIR	164.3	13.1	-5.8	170.3	15.9	-3.2	2	2
Flow Injection Analysis	176.3	9.3	6.3	181.3	9.7	7.8	8	8





ASEV-CTS Wine Industry Interlaboratory Testing Program

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Analysis 903 Free Sulfur Dioxide

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2WF2B8		23.20	-0.97	-0.22	26.00	-2.43	-0.54
2Y6AHM		29.00	4.83	1.11	35.50	7.07	1.58
2ZDGLF	*	34.00	9.83	2.26	35.00	6.57	1.47
3LC6QG		23.00	-1.17	-0.27	28.00	-0.43	-0.10
3N2EZH		23.50	-0.67	-0.15	27.50	-0.93	-0.21
6MWVQC	*	27.00	2.83	0.65	35.00	6.57	1.47
6XDKPH		30.00	5.83	1.34	35.00	6.57	1.47
76RNBB		24.00	-0.17	-0.04	29.00	0.57	0.13
7L2FDF		27.00	2.83	0.65	32.00	3.57	0.80
7R6EN6		25.00	0.83	0.19	30.00	1.57	0.35
86PGK3	X	43.80	19.63	4.50	47.00	18.57	4.16
8J94UZ	X	19.00	-5.17	-1.19	29.50	1.07	0.24
93ZAZ6		28.00	3.83	0.88	33.50	5.07	1.14
9LRF8W		20.50	-3.67	-0.84	25.00	-3.43	-0.77
9LRHVF		22.00	-2.17	-0.50	28.00	-0.43	-0.10
9PQQ4V		25.41	1.24	0.28	30.02	1.59	0.36
9PQTQE		24.00	-0.17	-0.04	28.00	-0.43	-0.10
9PRQ2B		22.50	-1.67	-0.38	26.00	-2.43	-0.54
9RFZBC		24.00	-0.17	-0.04	27.00	-1.43	-0.32
B8L2ZX		18.00	-6.17	-1.42	22.00	-6.43	-1.44
BJWEFD		19.50	-4.67	-1.07	24.50	-3.93	-0.88
BW4LWV		18.50	-5.67	-1.30	23.50	-4.93	-1.10
CTKRU3		16.00	-8.17	-1.88	21.50	-6.93	-1.55
D6Q2Y6		23.50	-0.67	-0.15	28.50	0.07	0.02
D6RWKV		24.00	-0.17	-0.04	26.50	-1.93	-0.43



ASEV-CTS Wine Industry Interlaboratory Testing Program

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Analysis 903 Free Sulfur Dioxide

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
DHXAGM		31.00	6.83	1.57	35.00	6.57	1.47
E6L2DV		22.50	-1.67	-0.38	26.50	-1.93	-0.43
EDECL6		22.00	-2.17	-0.50	27.00	-1.43	-0.32
EKZ9PU		19.00	-5.17	-1.19	22.50	-5.93	-1.33
F2JN7V		22.55	-1.62	-0.37	26.05	-2.38	-0.53
FZN629	*	36.00	11.83	2.71	41.00	12.57	2.82
G82D6V		23.00	-1.17	-0.27	27.00	-1.43	-0.32
GT6WFX		18.00	-6.17	-1.42	23.00	-5.43	-1.22
H6RNFR		23.00	-1.17	-0.27	29.00	0.57	0.13
HLHTLZ		23.50	-0.67	-0.15	27.50	-0.93	-0.21
HUdTZT		22.00	-2.17	-0.50	26.00	-2.43	-0.54
J67APU		27.00	2.83	0.65	28.00	-0.43	-0.10
JHDKUV		19.00	-5.17	-1.19	24.00	-4.43	-0.99
JRMMHG		24.50	0.33	0.08	29.50	1.07	0.24
K976L2	*	36.50	12.33	2.83	42.00	13.57	3.04
LCYLDL		22.50	-1.67	-0.38	25.50	-2.93	-0.66
LQZX9K		22.00	-2.17	-0.50	26.50	-1.93	-0.43
MNTYDJ		26.50	2.33	0.53	30.00	1.57	0.35
MT68DM		21.70	-2.47	-0.57	25.45	-2.98	-0.67
NBDUCZ		27.00	2.83	0.65	31.00	2.57	0.58
NCDRPG		22.00	-2.17	-0.50	27.00	-1.43	-0.32
PANK6K		26.50	2.33	0.53	31.50	3.07	0.69
PLUXYQ	X	15.50	-8.67	-1.99	13.00	-15.43	-3.45
QLB9DP	*	18.00	-6.17	-1.42	19.00	-9.43	-2.11
R3DBN3		27.00	2.83	0.65	30.50	2.07	0.46



Analysis 903
Free Sulfur Dioxide

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
R3DBQM	X	29.00	4.83	1.11	26.00	-2.43	-0.54
R6G7AQ		14.00	-10.17	-2.33	18.00	-10.43	-2.33
RAEPCN		25.00	0.83	0.19	31.00	2.57	0.58
RGD8NF		23.00	-1.17	-0.27	30.00	1.57	0.35
THZ96M		22.00	-2.17	-0.50	29.50	1.07	0.24
THZBUR		23.00	-1.17	-0.27	26.50	-1.93	-0.43
TKCQNT		27.00	2.83	0.65	30.50	2.07	0.46
TRAF8H	*	28.80	4.63	1.06	28.80	0.37	0.08
U4X2QH		20.00	-4.17	-0.96	24.00	-4.43	-0.99
UGNVZQ		27.50	3.33	0.76	32.00	3.57	0.80
UTZZCT		25.00	0.83	0.19	29.00	0.57	0.13
UY38TG		33.50	9.33	2.14	37.00	8.57	1.92
V7J38Q		22.00	-2.17	-0.50	25.00	-3.43	-0.77
W3HJKH	*	28.50	4.33	0.99	29.00	0.57	0.13
W72EMB		24.34	0.17	0.04	27.49	-0.94	-0.21
WF32DL		24.00	-0.17	-0.04	28.00	-0.43	-0.10
Y3QDDN		23.00	-1.17	-0.27	28.00	-0.43	-0.10
YEJT3P		22.00	-2.17	-0.50	28.00	-0.43	-0.10
Z7LLYA	X	39.59	15.42	3.54	46.01	17.58	3.94

Grand Means		Summary Statistics	
	24.172 mg/L		28.427 mg/L
Stnd Dev Btwn Labs			
	4.358 mg/L		4.466 mg/L
Statistics based on 64 of 69 reporting participants			

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel



Comments on assigned Data Flags

86PGK3 (X) - Data for both samples are high. Possible Systematic Error.

8J94UZ (X) - Inconsistent in testing between samples and inconsistent within the determinations for both samples.

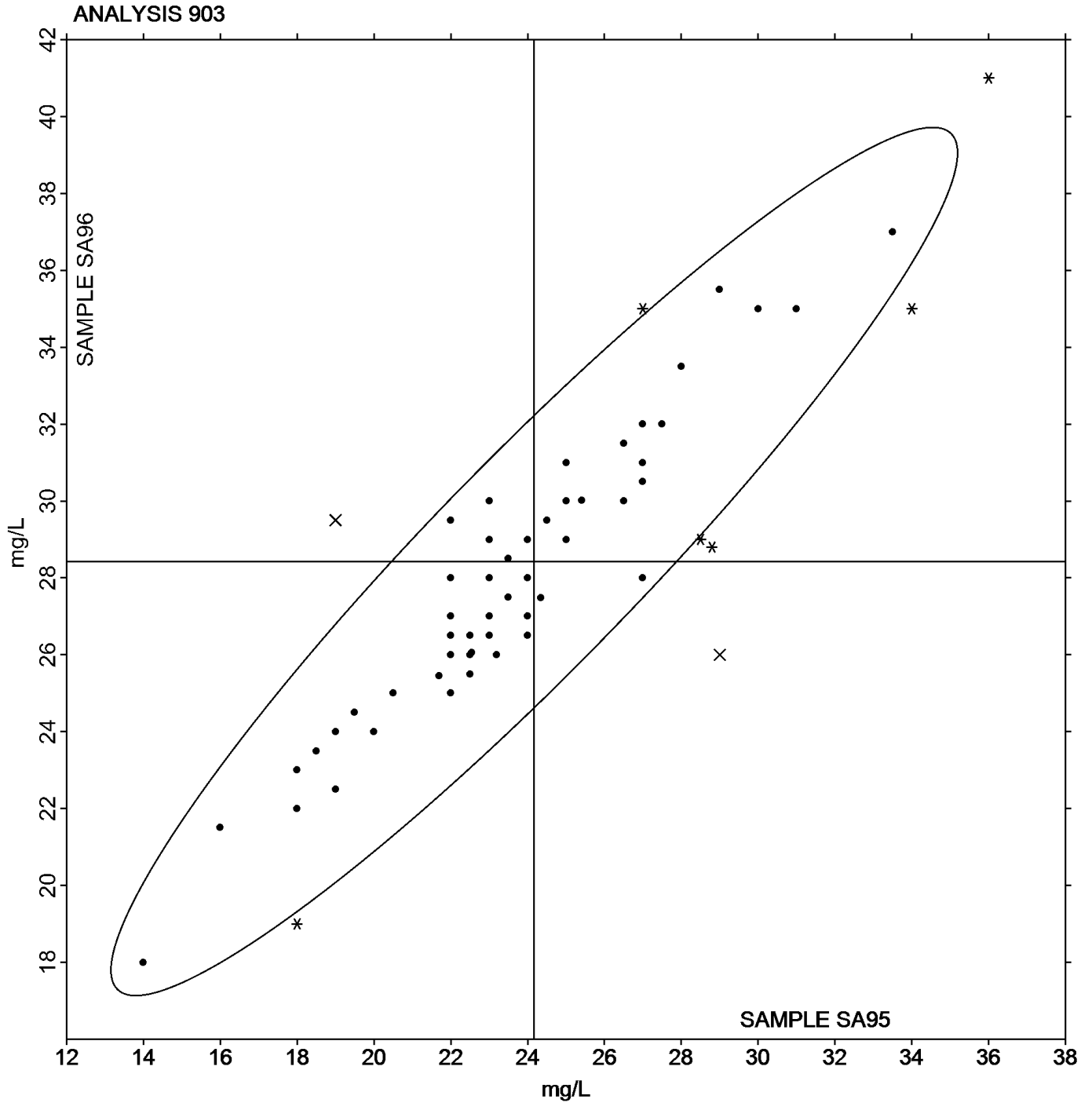
PLUXYQ (X) - Inconsistent in testing between samples, data for Sample SA96 are low. Also inconsistent in testing within the determinations for both samples.

R3DBQM (X) - Inconsistent in testing between samples.

Z7LLYA (X) - Data for both samples are high. Possible Systematic Error.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA95 <i>White Zinfandel</i>			Sample SA96 <i>White Zinfandel</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Please specify method used	20.00	2.83	-4.17	24.00	2.83	-4.43	2	2
Ripper Method	22.27	3.01	-1.90	26.71	3.09	-1.71	14	15
Aeration Oxidation (AO) Method	24.16	2.41	-0.02	28.34	2.85	-0.09	22	29
Segmented Flow Analyzer	22.92	4.08	-1.26	28.00	4.00	-0.43	6	8
Colorimetric Analyzer	31.50	1.80	7.33	35.67	1.15	7.24	3	3
Flow Injection Analysis	22.30	3.22	-1.87	26.90	3.18	-1.53	10	10





ASEV-CTS Wine Industry Interlaboratory Testing Program

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Analysis 904 Titratable Acidity

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2WF2B8	X	6.500	-0.147	-0.63	6.825	0.186	0.90
2Y6AHM	X	6.375	-0.272	-1.16	6.115	-0.525	-2.55
2ZDGLF		6.450	-0.197	-0.84	6.500	-0.140	-0.68
3LC6QG		6.945	0.299	1.28	6.855	0.216	1.05
3N2EZH		6.400	-0.247	-1.06	6.400	-0.240	-1.17
6MWVQC		6.520	-0.127	-0.54	6.640	0.001	0.00
6XDKPH		6.440	-0.207	-0.89	6.430	-0.210	-1.02
76RNBB	*	7.300	0.654	2.80	7.100	0.461	2.24
7L2FDF		6.400	-0.247	-1.06	6.500	-0.140	-0.68
7R6EN6		6.900	0.254	1.09	6.700	0.061	0.29
86PGK3		6.450	-0.197	-0.84	6.455	-0.185	-0.90
8J94UZ	*	7.200	0.554	2.37	7.200	0.561	2.73
93ZAZ6		7.050	0.404	1.73	7.000	0.361	1.76
9LRF8W	*	6.550	-0.097	-0.41	6.750	0.111	0.54
9LRHVF		6.600	-0.047	-0.20	6.500	-0.140	-0.68
9PQQ4V		6.770	0.124	0.53	6.720	0.081	0.39
9PQTQE	*	7.150	0.504	2.16	7.200	0.561	2.73
9PRQ2B		6.625	-0.022	-0.09	6.645	0.006	0.03
9RFZBC		6.790	0.144	0.62	6.825	0.186	0.90
B8L2ZX		6.950	0.304	1.30	6.860	0.221	1.07
BJWEFD		6.350	-0.297	-1.27	6.350	-0.290	-1.41
BW4LWV		6.550	-0.097	-0.41	6.500	-0.140	-0.68
CTKRU3		6.400	-0.247	-1.06	6.400	-0.240	-1.17
D6Q2Y6		6.350	-0.297	-1.27	6.400	-0.240	-1.17
D6RWKV		6.510	-0.137	-0.59	6.555	-0.085	-0.41



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Analysis 904 Titratable Acidity

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
DHXAGM		6.830	0.184	0.79	6.800	0.161	0.78
E6L2DV		6.800	0.154	0.66	6.700	0.061	0.29
EDECL6		6.885	0.239	1.02	6.745	0.106	0.51
EKZ9PU		6.720	0.074	0.32	6.580	-0.060	-0.29
F2JN7V		6.590	-0.057	-0.24	6.585	-0.055	-0.27
FZN629		6.400	-0.247	-1.06	6.500	-0.140	-0.68
G82D6V	X	7.650	1.004	4.30	7.500	0.861	4.19
GT6WFX		6.545	-0.102	-0.44	6.550	-0.090	-0.44
H6RNFR		6.800	0.154	0.66	6.900	0.261	1.27
HLHTLZ		6.750	0.104	0.44	6.700	0.061	0.29
JHDKUV		6.700	0.054	0.23	6.600	-0.040	-0.19
JRMMHG		6.510	-0.137	-0.59	6.555	-0.085	-0.41
K976L2		6.665	0.019	0.08	6.630	-0.010	-0.05
LCYLDL		6.840	0.194	0.83	6.685	0.046	0.22
LQZX9K	X	7.475	0.829	3.55	7.125	0.486	2.36
M9FQAU		6.700	0.054	0.23	6.800	0.161	0.78
MNTYDJ		6.300	-0.347	-1.49	6.350	-0.290	-1.41
MT68DM		6.650	0.004	0.02	6.650	0.011	0.05
NBDUCZ		6.650	0.004	0.02	6.550	-0.090	-0.44
NCDRPG		6.600	-0.047	-0.20	6.600	-0.040	-0.19
PANK6K		6.600	-0.047	-0.20	6.600	-0.040	-0.19
PLUXYQ	X	7.725	1.079	4.62	8.460	1.821	8.86
QLB9DP		6.310	-0.337	-1.44	6.395	-0.245	-1.19
R3DBN3		6.530	-0.117	-0.50	6.540	-0.100	-0.48
R3DBQM		6.700	0.054	0.23	6.650	0.011	0.05



Analysis 904
Titratable Acidity

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
R6G7AQ		6.725	0.079	0.34	6.605	-0.035	-0.17
RAEPCN		6.580	-0.067	-0.29	6.585	-0.055	-0.27
RGD8NF		6.600	-0.047	-0.20	6.550	-0.090	-0.44
THZ96M		6.430	-0.217	-0.93	6.560	-0.080	-0.39
THZBUR		6.480	-0.167	-0.71	6.505	-0.135	-0.65
TKCQNT		6.600	-0.047	-0.20	6.650	0.011	0.05
TRAF8H		6.265	-0.382	-1.64	6.300	-0.340	-1.65
U4X2QH		7.200	0.554	2.37	7.100	0.461	2.24
UGNVZQ		6.640	-0.007	-0.03	6.715	0.076	0.37
UTZZCT		6.500	-0.147	-0.63	6.500	-0.140	-0.68
UY38TG		6.885	0.239	1.02	7.000	0.361	1.76
V7J38Q	X	6.540	-0.107	-0.46	7.080	0.441	2.14
W3HJKH	X	6.225	-0.422	-1.81	6.880	0.241	1.17
W72EMB	X	6.785	0.139	0.59	8.800	2.161	10.52
WF32DL		6.440	-0.207	-0.89	6.430	-0.210	-1.02
Y3QDDN		6.500	-0.147	-0.63	6.500	-0.140	-0.68
YEJT3P		6.700	0.054	0.23	6.700	0.061	0.29
Z7LLYA		6.520	-0.127	-0.54	6.520	-0.120	-0.58

Grand Means		Summary Statistics	
	6.6465 g/L as tartaric acid		6.6395 g/L as tartaric acid
Std Dev Btwn Labs			
	0.2333 g/L as tartaric acid		0.2054 g/L as tartaric acid
Statistics based on 60 of 68 reporting participants			

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel



Comments on assigned Data Flags

2WF2B8 (X) - Inconsistent in testing between samples.

2Y6AHM (X) - Inconsistent in testing between samples.

G82D6V (X) - Data for both samples are high. Possible Systematic Error.

LQZX9K (X) - Inconsistent in testing between samples, data for Sample SA95 are high.

PLUXYQ (X) - Data for both samples are high. Also inconsistent in testing within the determinations for both samples.

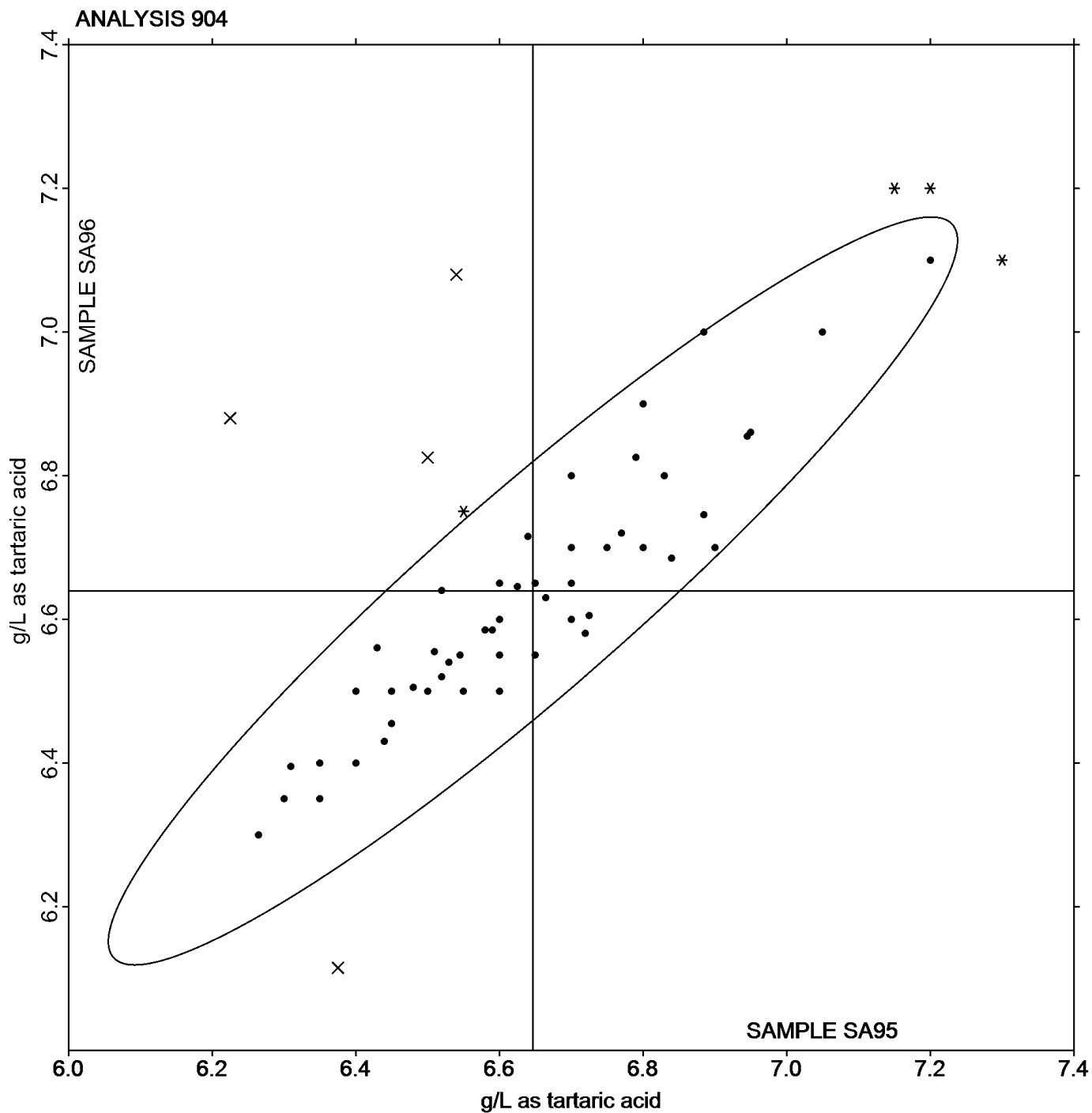
V7J38Q (X) - Inconsistent in testing between samples.

W3HJKH (X) - Inconsistent in testing between samples and inconsistent within the determinations for Sample SA96.

W72EMB (X) - Inconsistent in testing between samples, data for Sample SA96 are high.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA95 <i>White Zinfandel</i>			Sample SA96 <i>White Zinfandel</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Please specify method	6.950	0.000	0.304	6.860	0.000	0.221	1	1
Autotitration	6.636	0.204	-0.011	6.618	0.180	-0.021	40	43
Manual Titration	6.493	0.123	-0.153	6.542	0.117	-0.098	8	16
FTIR	6.594	0.192	-0.052	6.592	0.157	-0.048	6	7
Segmented Flow Analyzer	6.700	0.000	0.054	6.650	0.000	0.011	1	1





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Analysis 905 Volatile Acidity

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2WF2B8		0.1100	-0.1324	-1.59	0.0800	-0.1307	-1.59
2Y6AHM		0.3000	0.0576	0.69	0.2400	0.0293	0.36
2ZDGLF		0.4250	0.1826	2.20	0.4000	0.1893	2.30
3N2EZH		0.3550	0.1126	1.35	0.3200	0.1093	1.33
6MWVQC		0.2400	-0.0024	-0.03	0.2100	-0.0007	-0.01
6XDKPH		0.1500	-0.0924	-1.11	0.1150	-0.0957	-1.16
76RNBB		0.1750	-0.0674	-0.81	0.1400	-0.0707	-0.86
7L2FDF		0.1700	-0.0724	-0.87	0.1400	-0.0707	-0.86
7R6EN6		0.2850	0.0426	0.51	0.2500	0.0393	0.48
86PGK3		0.2400	-0.0024	-0.03	0.2100	-0.0007	-0.01
8J94UZ	X	0.4700	0.2276	2.74	0.5250	0.3143	3.82
93ZAZ6		0.2850	0.0426	0.51	0.2350	0.0243	0.30
9LRF8W		0.3050	0.0626	0.75	0.2850	0.0743	0.90
9LRHVF	X	0.6000	0.3576	4.30	0.5000	0.2893	3.51
9PQQ4V		0.1850	-0.0574	-0.69	0.1500	-0.0607	-0.74
9PQTQE		0.2700	0.0276	0.33	0.2450	0.0343	0.42
9PRQ2B		0.1400	-0.1024	-1.23	0.1200	-0.0907	-1.10
9RFZBC		0.1750	-0.0674	-0.81	0.1550	-0.0557	-0.68
B8L2ZX		0.3900	0.1476	1.77	0.3400	0.1293	1.57
BJWEFD		0.2950	0.0526	0.63	0.2400	0.0293	0.36
BW4LWV		0.3000	0.0576	0.69	0.2700	0.0593	0.72
CTKRU3	X	0.2750	0.0326	0.39	0.0900	-0.1207	-1.47
D6Q2Y6		0.1400	-0.1024	-1.23	0.1200	-0.0907	-1.10
D6RWKV		0.2450	0.0026	0.03	0.1850	-0.0257	-0.31
DHXAGM		0.1300	-0.1124	-1.35	0.1100	-0.1007	-1.22



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Analysis 905 Volatile Acidity

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
E6L2DV		0.2350	-0.0074	-0.09	0.2050	-0.0057	-0.07
EDECL6		0.1650	-0.0774	-0.93	0.1300	-0.0807	-0.98
EKZ9PU		0.2300	-0.0124	-0.15	0.1900	-0.0207	-0.25
F2JN7V		0.1580	-0.0844	-1.01	0.1270	-0.0837	-1.02
FZN629		0.3650	0.1226	1.47	0.3550	0.1443	1.75
G82D6V		0.1900	-0.0524	-0.63	0.1850	-0.0257	-0.31
GT6WFX		0.3750	0.1326	1.59	0.3400	0.1293	1.57
H6RNFRR		0.3000	0.0576	0.69	0.2700	0.0593	0.72
HLHTLZ		0.2500	0.0076	0.09	0.1950	-0.0157	-0.19
HUdTZT	*	0.2700	0.0276	0.33	0.2800	0.0693	0.84
JHDKUV		0.3250	0.0826	0.99	0.3200	0.1093	1.33
JRMMHG		0.2350	-0.0074	-0.09	0.1800	-0.0307	-0.37
K976L2		0.1500	-0.0924	-1.11	0.1250	-0.0857	-1.04
LCYLDL		0.2050	-0.0374	-0.45	0.1550	-0.0557	-0.68
LQZX9K		0.1535	-0.0889	-1.07	0.1255	-0.0852	-1.03
M9FQAU	*	0.4500	0.2076	2.50	0.4000	0.1893	2.30
MNTYDJ		0.3150	0.0726	0.87	0.2550	0.0443	0.54
MT68DM		0.1450	-0.0974	-1.17	0.1000	-0.1107	-1.34
NBDUCZ		0.3350	0.0926	1.11	0.3150	0.1043	1.27
NCDRPG		0.3850	0.1426	1.71	0.3600	0.1493	1.81
PANK6K		0.2400	-0.0024	-0.03	0.2300	0.0193	0.23
PLUXYQ	X	0.6750	0.4326	5.20	0.6150	0.4043	4.91
QLB9DP		0.1650	-0.0774	-0.93	0.1350	-0.0757	-0.92
R3DBN3		0.3800	0.1376	1.65	0.3350	0.1243	1.51
R3DBQM	X	0.2700	0.0276	0.33	0.3200	0.1093	1.33



ASEV-CTS Wine Industry Interlaboratory Testing Program

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Spring 2015

Analysis 905
Volatile Acidity

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
RAEPCN		0.2600	0.0176	0.21	0.2350	0.0243	0.30
RGD8NF	X	0.4200	0.1776	2.14	0.3400	0.1293	1.57
THZBUR		0.1550	-0.0874	-1.05	0.1250	-0.0857	-1.04
TKCQNT		0.2450	0.0026	0.03	0.2200	0.0093	0.11
TRAF8H		0.1770	-0.0654	-0.79	0.1480	-0.0627	-0.76
U4X2QH		0.1650	-0.0774	-0.93	0.1400	-0.0707	-0.86
UGNVZQ		0.2700	0.0276	0.33	0.2300	0.0193	0.23
UTZZCT		0.1700	-0.0724	-0.87	0.1400	-0.0707	-0.86
UY38TG		0.1350	-0.1074	-1.29	0.1100	-0.1007	-1.22
V7J38Q		0.3110	0.0686	0.82	0.2810	0.0703	0.85
W3HJKH		0.2500	0.0076	0.09	0.2300	0.0193	0.23
WF32DL		0.1900	-0.0524	-0.63	0.1400	-0.0707	-0.86
Y3QDDN		0.1700	-0.0724	-0.87	0.1400	-0.0707	-0.86
YEJT3P		0.2200	-0.0224	-0.27	0.2200	0.0093	0.11
Z7LLYA		0.2520	0.0096	0.12	0.1980	-0.0127	-0.15

Grand Means		Summary Statistics	
	0.24240 g/L as acetic acid		0.21067 g/L as acetic acid
Stnd Dev Btwn Labs	0.08317 g/L as acetic acid		0.08231 g/L as acetic acid
Statistics based on 59 of 65 reporting participants			

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel



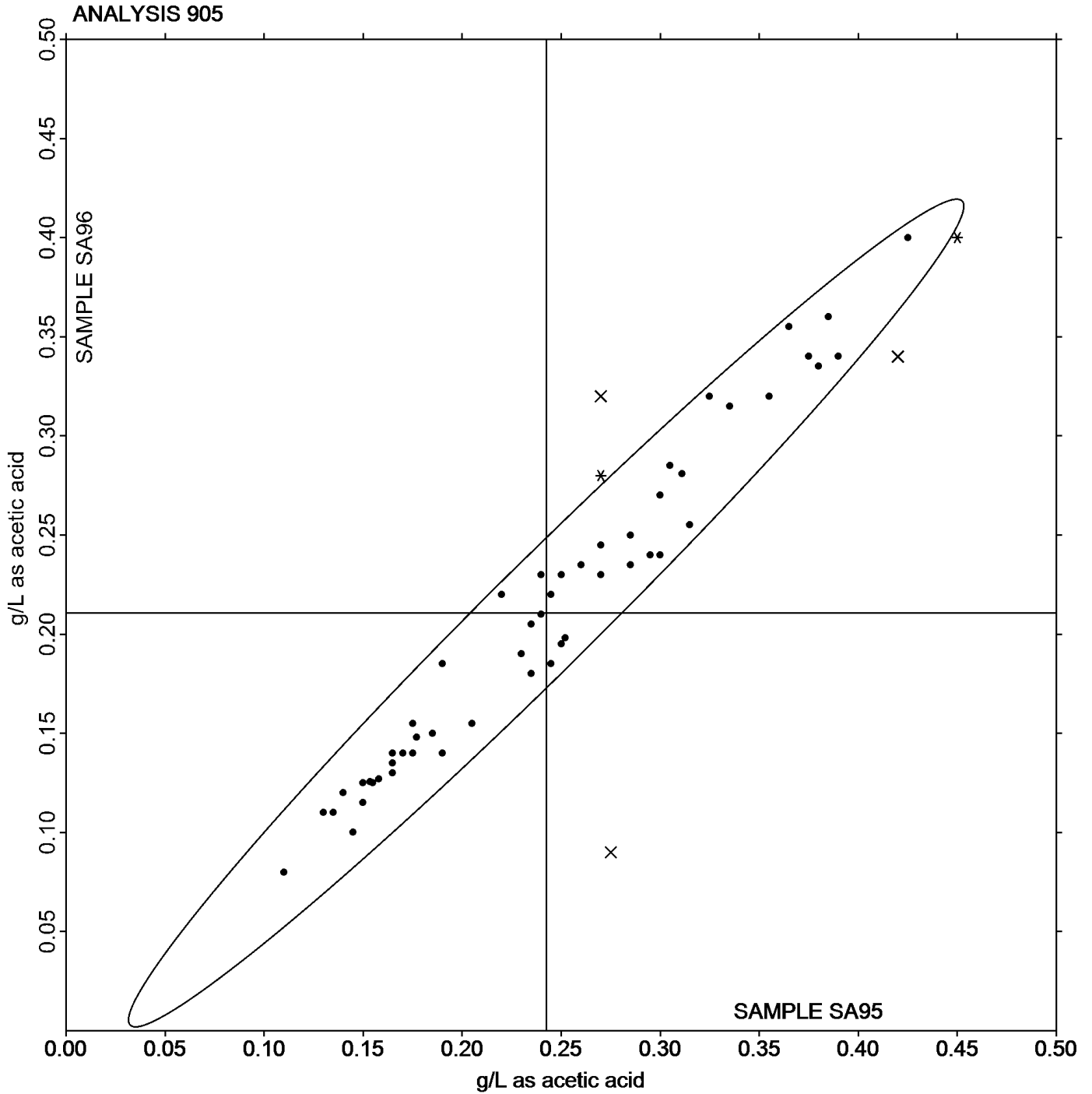
Analysis 905
Volatile Acidity

Comments on assigned Data Flags

- 8J94UZ (X) - Data for both samples are high.
- 9LRHVF (X) - Data for both samples are high.
- CTKRU3 (X) - Inconsistent in testing between samples.
- PLUXYQ (X) - Data for both samples are high.
- R3DBQM (X) - Inconsistent in testing between samples.
- RGD8NF (X) - Inconsistent in testing between samples.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA95 <i>White Zinfandel</i>			Sample SA96 <i>White Zinfandel</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Cash Still method	0.3076	0.0527	0.0652	0.2776	0.0483	0.0669	10	16
Enzymatic method	0.1962	0.0562	-0.0462	0.1614	0.0513	-0.0493	29	29
HPLC	0.1850	0.0000	-0.0574	0.1500	0.0000	-0.0607	1	1
GC	0.1960	0.0792	-0.0464	0.1590	0.0552	-0.0517	2	2
Seg. Flow / Colorimetric Analyzer	0.3364	0.0442	0.0940	0.3071	0.0475	0.0965	7	9
FTIR	0.2356	0.0857	-0.0068	0.2094	0.0859	-0.0013	8	8





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Analysis 906 Specific Gravity

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2ZDGLF		1.011	0.000	-0.78	1.011	0.000	-0.77
3LC6QG		1.012	0.000	0.25	1.011	0.000	0.48
3N2EZH		1.012	0.000	0.07	1.011	0.000	0.01
6MWVQC		1.011	-0.001	-1.99	1.010	-0.001	-1.82
6XDKPH		1.012	0.000	0.08	1.011	0.000	-0.10
76RNBB		1.012	0.000	0.59	1.011	0.000	0.48
7L2FDF		1.012	0.000	0.27	1.010	0.000	-0.94
7R6EN6		1.012	0.000	0.01	1.011	0.000	-0.07
86PGK3		1.012	0.000	0.29	1.011	0.000	0.00
8J94UZ	X	1.015	0.003	5.57	1.010	-0.001	-1.82
93ZAZ6		1.011	-0.001	-0.95	1.011	0.000	-0.38
9LRF8W	*	1.010	-0.002	-2.59	1.009	-0.001	-2.87
9LRHVF	X	1.010	-0.002	-3.61	1.008	-0.003	-5.57
9PQQ4V		1.012	0.000	0.59	1.011	0.000	0.67
9PQTQE	*	1.010	-0.002	-2.78	1.009	-0.002	-3.25
9PRQ2B		1.012	0.000	0.42	1.011	0.000	-0.86
9RFZBC		1.012	0.000	0.11	1.011	0.000	-0.02
B8L2ZX		1.012	0.000	0.42	1.011	0.000	0.10
BJWEFD		1.012	0.000	0.08	1.011	0.000	0.10
BW4LWV		1.011	-0.001	-1.64	1.010	-0.001	-1.53
CTKRU3		1.012	0.000	0.21	1.011	0.000	0.21
D6Q2Y6	X	1.016	0.005	7.90	1.011	0.000	0.65
E6L2DV		1.012	0.000	0.26	1.011	0.000	0.11
EDECL6		1.012	0.000	-0.44	1.011	0.000	-0.10
EKZ9PU		1.012	0.000	0.11	1.011	0.000	0.01



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Analysis 906 Specific Gravity

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
F2JN7V		1.012	0.000	0.26	1.011	0.000	0.16
FZN629		1.012	0.000	0.07	1.011	0.000	-0.08
G82D6V		1.012	0.000	0.39	1.012	0.001	1.93
GT6WFX		1.012	0.000	0.33	1.011	0.000	0.10
H6RNFR	X	1.009	-0.003	-4.65	1.009	-0.002	-4.50
HLHTLZ		1.012	0.000	0.57	1.011	0.000	-0.29
HUDTZT		1.012	0.000	0.28	1.011	0.000	0.13
J67APU		1.012	0.000	0.00	1.011	0.000	-0.04
JHDKUV	X	1.013	0.002	2.65	1.011	0.000	0.22
JRMMHG		1.013	0.001	1.45	1.012	0.001	1.34
LCYLDL		1.012	0.000	-0.44	1.011	0.000	-0.38
M9FQAU		1.012	0.000	0.12	1.011	0.000	-0.02
MNTYDJ		1.012	0.000	0.02	1.011	0.000	-0.11
NBDUCZ		1.012	0.000	-0.03	1.011	0.000	-0.23
PANK6K	X	1.015	0.003	4.72	1.014	0.003	5.27
PLUXYQ		1.012	0.000	0.76	1.011	0.000	0.77
R3DBN3		1.012	0.000	0.16	1.011	0.000	0.10
R3DBQM	X	1.011	-0.001	-1.30	1.012	0.001	1.63
R6G7AQ		1.013	0.001	2.49	1.012	0.001	2.40
RAEPCN		1.012	0.000	-0.27	1.011	0.000	0.48
RGD8NF		1.012	0.000	0.08	1.011	0.000	0.00
THZ96M		1.012	0.000	-0.35	1.011	0.000	0.19
THZBUR	*	1.010	-0.002	-3.27	1.010	-0.001	-2.20
TKCQNT		1.012	0.000	0.28	1.011	0.000	0.34
TRAF8H		1.012	0.000	-0.44	1.011	0.000	0.29



Analysis 906
Specific Gravity

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
U4X2QH		1.012	0.000	0.76	1.011	0.000	0.67
UGNVZQ		1.012	0.000	0.85	1.011	0.000	0.86
UY38TG		1.011	0.000	-0.77	1.011	0.000	-0.06
V7J38Q		1.012	0.000	0.09	1.011	0.000	0.04
W3HJKH	X	1.009	-0.003	-4.39	1.008	-0.003	-4.88
W72EMB		1.013	0.001	1.59	1.012	0.001	1.84
WF32DL	X	1.041	0.029	50.24	1.013	0.002	4.50
Y3QDDN		1.012	0.000	0.42	1.011	0.000	0.10
YEJT3P		1.012	0.000	0.25	1.011	0.000	0.29
Z7LLYA		1.012	0.000	0.42	1.011	0.000	0.10

Grand Means		Summary Statistics	
1.0118	sp gr 20/20 C	1.0109	sp gr 20/20 C
Std Dev Btwn Labs		0.0005	sp gr 20/20 C
0.0006	sp gr 20/20 C	Statistics based on 51 of 60 reporting participants	

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel



Comments on assigned Data Flags

8J94UZ (X) - Data for Sample SA95 are high.

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

D6Q2Y6 (X) - High data for Sample SA95.

H6RNFR (X) - Data for both samples are low.

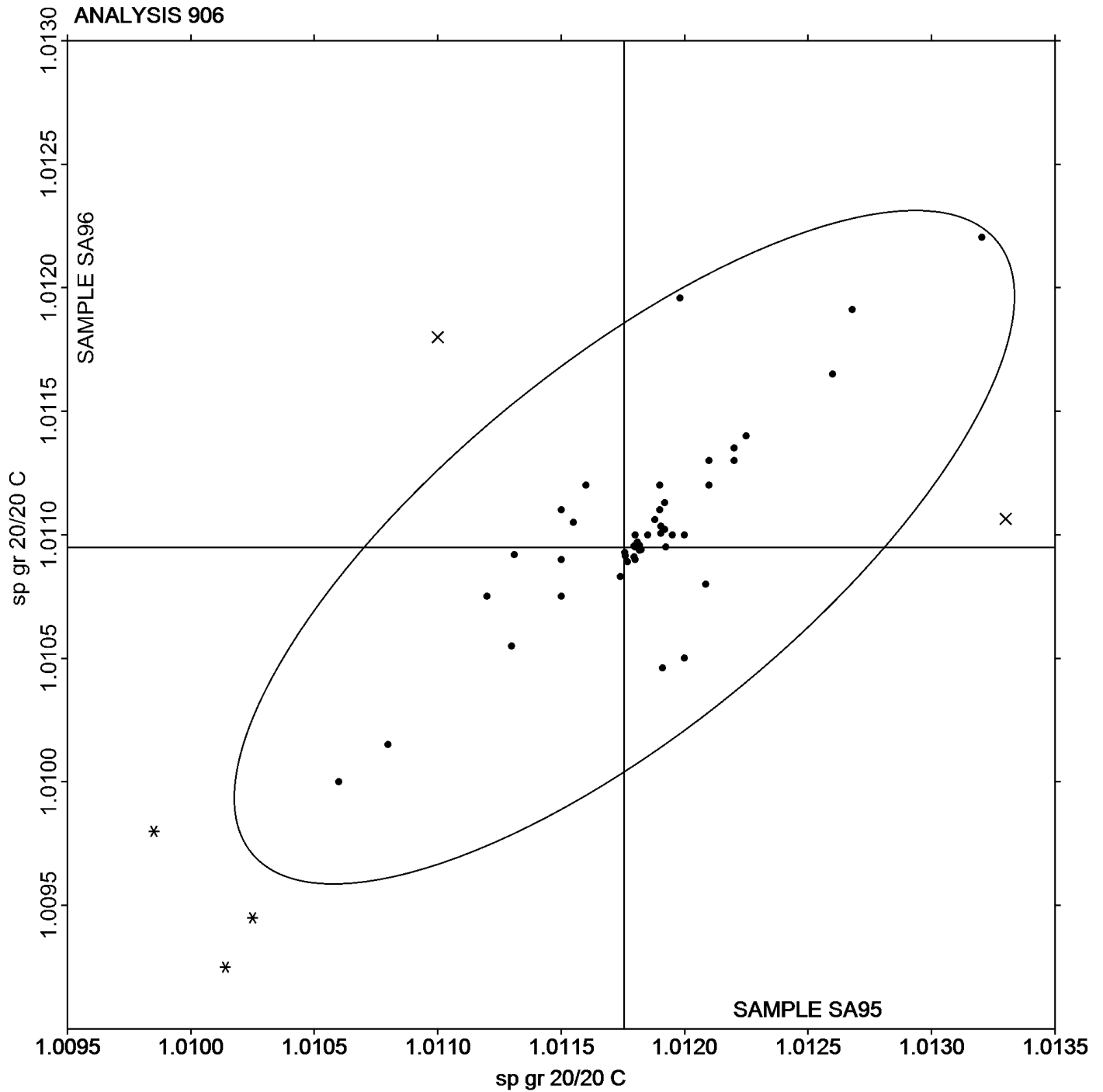
JHDKUV (X) - Inconsistent in testing between samples.

PANK6K (X) - Data for both samples are high.

R3DBQM (X) - Inconsistent in testing between samples.

W3HJKH (X) - Data for both samples are low.

WF32DL (X) - Data for both samples are high.





ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #049
Spring 2015

Analysis 907

pH

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2WF2B8		3.130	-0.011	-0.30	3.100	-0.025	-0.69
2Y6AHM		3.135	-0.006	-0.16	3.120	-0.005	-0.13
2ZDGLF		3.150	0.009	0.25	3.130	0.005	0.15
3LC6QG		3.141	0.000	-0.01	3.125	0.000	-0.01
3N2EZH		3.120	-0.021	-0.57	3.100	-0.025	-0.69
6MWVQC	X	3.120	-0.021	-0.57	3.160	0.035	0.99
6XDKPH		3.140	-0.001	-0.02	3.120	-0.005	-0.13
76RNBB		3.105	-0.036	-0.99	3.080	-0.045	-1.25
7L2FDF		3.110	-0.031	-0.85	3.100	-0.025	-0.69
7R6EN6		3.140	-0.001	-0.02	3.110	-0.015	-0.41
86PGK3		3.125	-0.016	-0.44	3.115	-0.010	-0.27
8J94UZ	X	3.170	0.029	0.80	3.080	-0.045	-1.25
93ZAZ6		3.145	0.004	0.11	3.120	-0.005	-0.13
9LRF8W		3.095	-0.046	-1.26	3.090	-0.035	-0.97
9LRHVF		3.120	-0.021	-0.57	3.100	-0.025	-0.69
9PQQ4V		3.205	0.064	1.76	3.200	0.075	2.10
9PQTQE		3.180	0.039	1.08	3.160	0.035	0.99
9PRQ2B		3.170	0.029	0.80	3.140	0.015	0.43
9RFZBC		3.060	-0.081	-2.22	3.045	-0.080	-2.23
B8L2ZX		3.185	0.044	1.21	3.170	0.045	1.26
BJWEFD		3.175	0.034	0.94	3.145	0.020	0.57
BW4LWV		3.185	0.044	1.21	3.170	0.045	1.26
CTKRU3		3.120	-0.021	-0.57	3.115	-0.010	-0.27
D6Q2Y6		3.160	0.019	0.53	3.140	0.015	0.43
D6RWKV		3.110	-0.031	-0.85	3.105	-0.020	-0.55



ASEV-CTS Wine Industry Interlaboratory Testing Program

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Analysis 907

pH

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
DHXAGM		3.130	-0.011	-0.30	3.120	-0.005	-0.13
E6L2DV		3.195	0.054	1.49	3.175	0.050	1.40
EDECL6		3.150	0.009	0.25	3.130	0.005	0.15
EKZ9PU		3.190	0.049	1.35	3.185	0.060	1.68
F2JN7V		3.160	0.019	0.53	3.145	0.020	0.57
G82D6V		3.140	-0.001	-0.02	3.110	-0.015	-0.41
GT6WFX		3.115	-0.026	-0.71	3.100	-0.025	-0.69
H6RNFR	*	3.075	-0.066	-1.81	3.085	-0.040	-1.11
HLHTLZ		3.145	0.004	0.11	3.120	-0.005	-0.13
HUdTZT	*	3.050	-0.091	-2.50	3.030	-0.095	-2.65
JHDKUV		3.100	-0.041	-1.12	3.075	-0.050	-1.39
JRMMHG		3.105	-0.036	-0.99	3.095	-0.030	-0.83
K976L2		3.210	0.069	1.90	3.200	0.075	2.10
LCYLDL		3.085	-0.056	-1.54	3.070	-0.055	-1.53
LQZX9K		3.125	-0.016	-0.44	3.125	0.000	0.01
MNTYDJ		3.130	-0.011	-0.30	3.115	-0.010	-0.27
MT68DM		3.120	-0.021	-0.57	3.105	-0.020	-0.55
NBDUCZ		3.090	-0.051	-1.40	3.085	-0.040	-1.11
NCDRPG		3.160	0.019	0.53	3.145	0.020	0.57
PANK6K		3.145	0.004	0.11	3.125	0.000	0.01
PLUXYQ		3.105	-0.036	-0.99	3.070	-0.055	-1.53
QLB9DP	X	3.470	0.329	9.05	3.460	0.335	9.36
R3DBN3		3.160	0.019	0.53	3.145	0.020	0.57
R3DBQM	X	2.995	-0.146	-4.01	3.050	-0.075	-2.09
R6G7AQ		3.180	0.039	1.08	3.160	0.035	0.99



Analysis 907

pH

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
RAEPCN		3.203	0.062	1.71	3.173	0.048	1.35
RGD8NF		3.130	-0.011	-0.30	3.115	-0.010	-0.27
THZ96M		3.155	0.014	0.39	3.130	0.005	0.15
THZBUR		3.125	-0.016	-0.44	3.105	-0.020	-0.55
TKCQNT		3.165	0.024	0.66	3.140	0.015	0.43
TRAF8H		3.110	-0.031	-0.85	3.100	-0.025	-0.69
U4X2QH		3.170	0.029	0.80	3.155	0.030	0.85
UGNVZQ		3.200	0.059	1.63	3.180	0.055	1.54
UTZZCT		3.200	0.059	1.63	3.190	0.065	1.82
UY38TG		3.155	0.014	0.39	3.140	0.015	0.43
V7J38Q		3.140	-0.001	-0.02	3.120	-0.005	-0.13
W3HJKH	X	3.155	0.014	0.39	3.085	-0.040	-1.11
W72EMB	X	2.885	-0.256	-7.03	2.955	-0.170	-4.74
WF32DL		3.145	0.004	0.11	3.130	0.005	0.15
Y3QDDN		3.185	0.044	1.21	3.175	0.050	1.40
YEJT3P	*	3.120	-0.021	-0.57	3.130	0.005	0.15
Z7LLYA		3.120	-0.021	-0.57	3.110	-0.015	-0.41

Grand Means		Summary Statistics	
	3.1409 pH		3.1247 pH
Std Dev Btwn Labs			0.0358 pH
	0.0364 pH	Statistics based on 61 of 67 reporting participants	

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel



Comments on assigned Data Flags

6MWVQC (X) - Inconsistent in testing between samples.

8J94UZ (X) - Inconsistent in testing between samples.

QLB9DP (X) - Data for both samples are high.

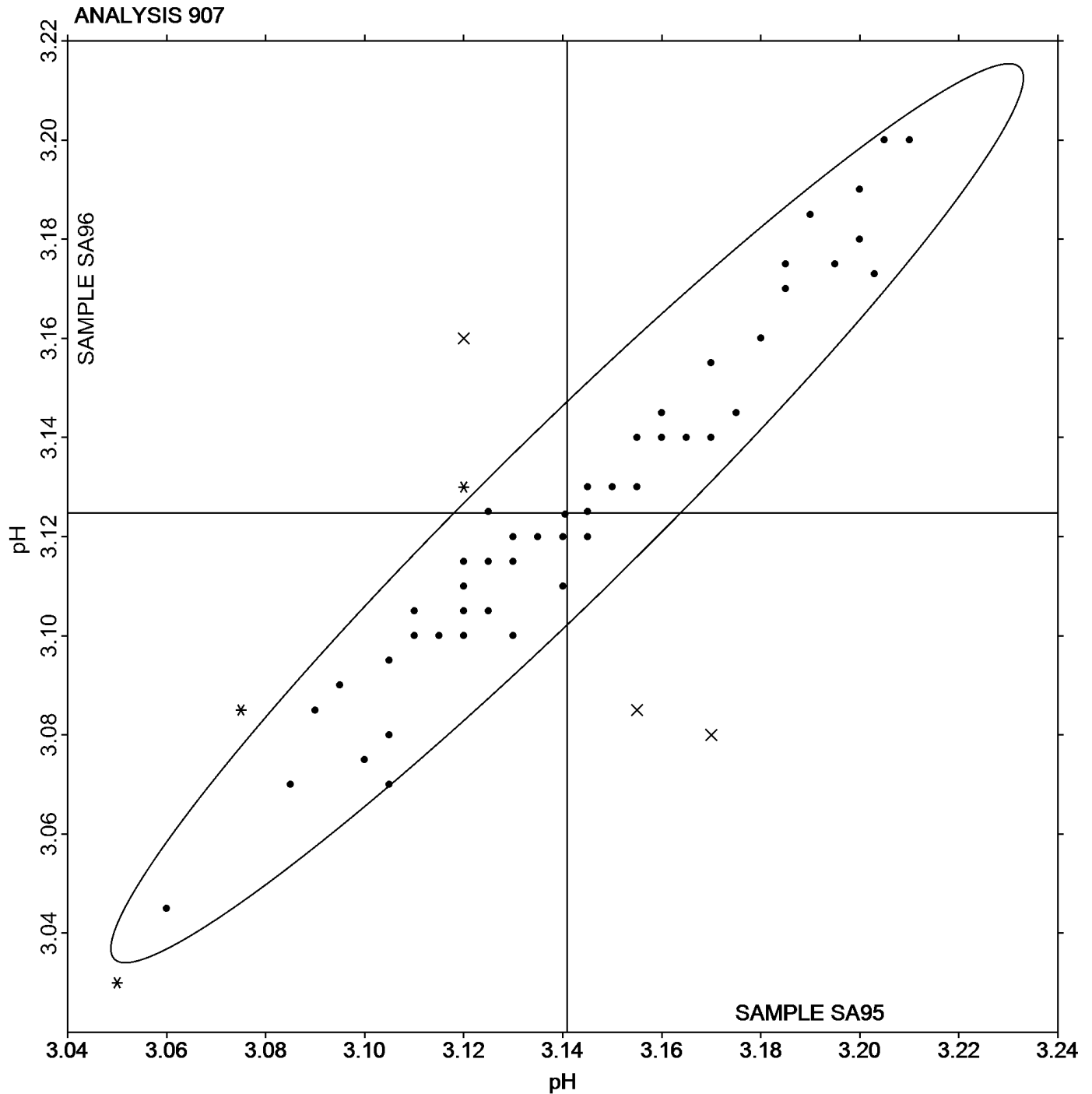
R3DBQM (X) - Inconsistent in testing between samples, data for Sample SA95 are low. Also inconsistent in testing within the determinations for Sample SA96.

W3HJKH (X) - Inconsistent in testing between samples and inconsistent within the determinations for Sample SA96.

W72EMB (X) - Data for both samples are low. Also inconsistent in testing within the determinations for Sample SA96.



pH





Analysis 908
Residual Sugar

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2ZDGLF		36.90	-2.67	-1.21	35.40	-3.21	-1.27
6MWVQC		39.37	-0.20	-0.09	37.74	-0.87	-0.34
86PGK3		38.45	-1.13	-0.51	36.28	-2.33	-0.92
8J94UZ	X	6.00	-33.57	-15.15	6.00	-32.61	-12.88
9PQQ4V		39.34	-0.23	-0.10	38.31	-0.30	-0.12
FZN629		39.25	-0.32	-0.14	37.75	-0.86	-0.34
G82D6V		39.75	0.18	0.08	38.30	-0.31	-0.12
HUdTZT		37.30	-2.27	-1.03	36.50	-2.11	-0.83
NBDUCZ		37.30	-2.27	-1.03	37.60	-1.01	-0.40
R3DBQM		40.50	0.93	0.42	42.50	3.89	1.54
TRAF8H		43.00	3.43	1.55	43.00	4.39	1.73
U4X2QH		39.79	0.21	0.10	39.48	0.87	0.34
W3HJKH		44.40	4.83	2.18	43.20	4.59	1.81
W72EMB		38.50	-1.07	-0.48	36.60	-2.01	-0.79
Y3QDDN		42.80	3.23	1.46	40.75	2.14	0.85
YEJT3P		36.90	-2.67	-1.21	35.70	-2.91	-1.15
Z7LLYA		39.60	0.03	0.01	38.60	-0.01	0.00

Grand Means		Summary Statistics	
	39.571 g/L		38.607 g/L
Std Dev Btwn Labs			
	2.216 g/L		2.532 g/L
Statistics based on 16 of 17 reporting participants			

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel

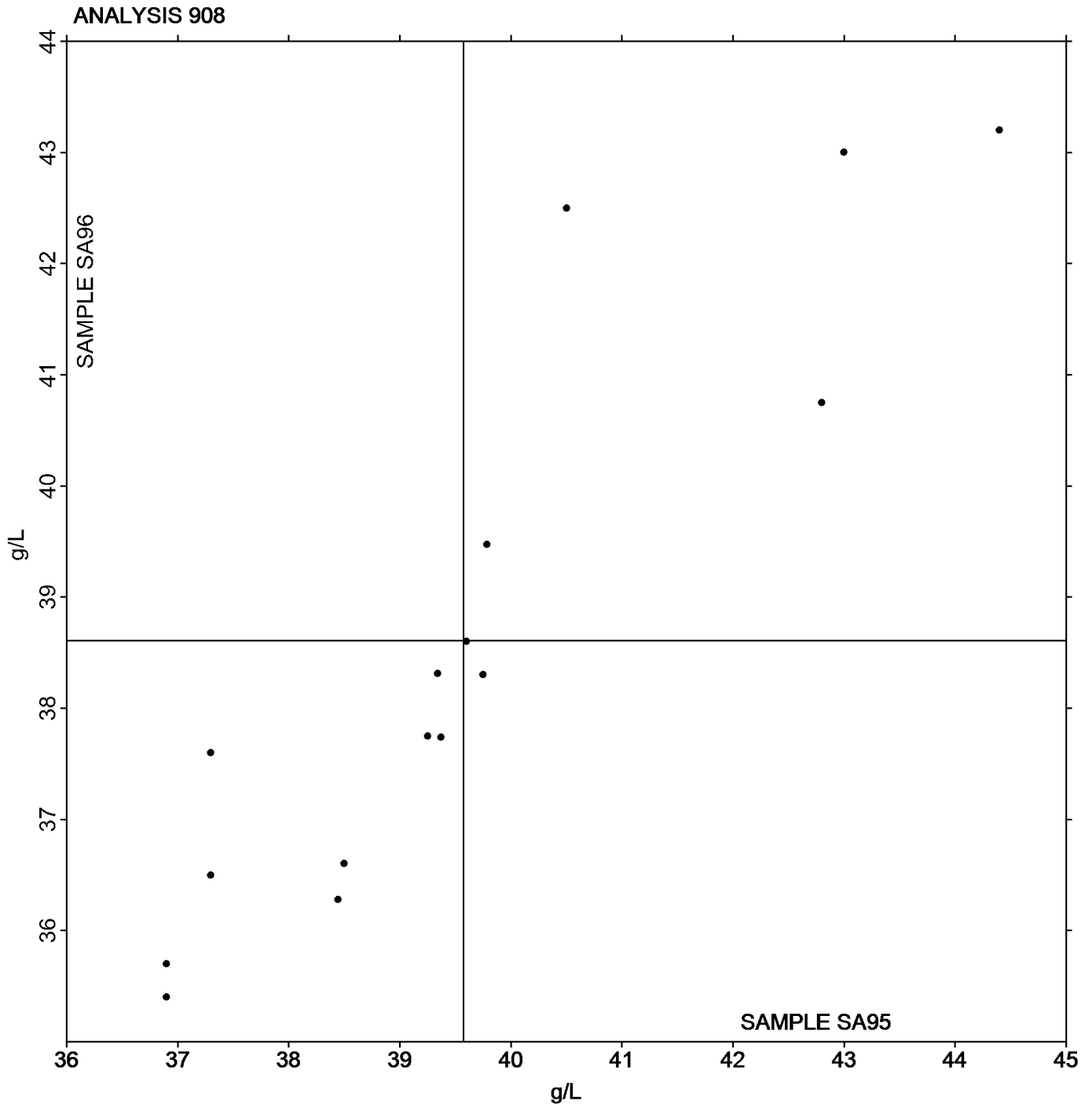
Comments on assigned Data Flags

8J94UZ (X) - Data for both samples are low.



Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA95 <i>White Zinfandel</i>			Sample SA96 <i>White Zinfandel</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Cu Reduction Method	38.84	2.11	-0.73	38.00	2.45	-0.61	7	8
Segmented Flow	39.88	0.88	0.30	40.13	3.36	1.52	2	2
FTIR	40.64	2.97	1.07	39.08	2.99	0.47	5	5
Other _____	39.14	0.91	-0.43	38.04	2.03	-0.57	2	2



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



ASEV-CTS Wine Industry Interlaboratory Testing Program

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Analysis 909

L-Malic Acid

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2WF2B8		2.120	-0.353	-2.38	2.090	-0.306	-1.98
2ZDGLF		2.555	0.082	0.55	2.465	0.069	0.45
3N2EZH		2.495	0.022	0.15	2.435	0.039	0.25
6XDKPH		2.540	0.067	0.45	2.475	0.079	0.51
76RNBB		2.687	0.214	1.44	2.604	0.207	1.34
7L2FDF		2.635	0.162	1.09	2.546	0.150	0.97
86PGK3		2.185	-0.288	-1.94	2.160	-0.236	-1.53
8J94UZ	X	38.725	36.252	244.52	39.400	37.004	239.56
93ZAZ6		2.530	0.057	0.39	2.380	-0.016	-0.10
9LRF8W		2.581	0.108	0.73	2.505	0.109	0.70
9LRHVF		2.211	-0.262	-1.77	2.117	-0.280	-1.81
9PQQ4V		2.325	-0.148	-1.00	2.190	-0.206	-1.33
9PQTQE		2.315	-0.158	-1.06	2.300	-0.096	-0.62
9PRQ2B		2.555	0.082	0.55	2.495	0.099	0.64
9RFZBC		2.760	0.287	1.94	2.700	0.304	1.97
B8L2ZX		2.670	0.197	1.33	2.560	0.164	1.06
BJWEFD		2.480	0.007	0.05	2.515	0.119	0.77
BW4LWV		2.500	0.027	0.18	2.550	0.154	1.00
CTKRU3		2.415	-0.058	-0.39	2.470	0.074	0.48
D6Q2Y6		2.515	0.042	0.28	2.460	0.064	0.41
D6RWKV		2.570	0.097	0.66	2.480	0.084	0.54
DHXAGM		2.480	0.007	0.05	2.300	-0.096	-0.62
E6L2DV		2.810	0.337	2.27	2.720	0.324	2.10
EDECL6		2.643	0.170	1.15	2.537	0.141	0.91
EKZ9PU		2.600	0.127	0.86	2.510	0.114	0.74



ASEV-CTS Wine Industry Interlaboratory Testing Program

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Analysis 909

L-Malic Acid

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
F2JN7V		2.575	0.102	0.69	2.595	0.199	1.29
G82D6V		2.520	0.047	0.32	2.455	0.059	0.38
GT6WFX		2.515	0.042	0.28	2.450	0.054	0.35
H6RNFR		2.250	-0.223	-1.50	2.180	-0.216	-1.40
HLHTLZ		2.411	-0.062	-0.42	2.379	-0.017	-0.11
JHDKUV		2.445	-0.028	-0.19	2.395	-0.001	-0.01
JRMMHG		2.510	0.037	0.25	2.385	-0.011	-0.07
K976L2		2.375	-0.098	-0.66	2.270	-0.126	-0.82
LCYLDL		2.355	-0.118	-0.80	2.385	-0.011	-0.07
LQZX9K		2.414	-0.059	-0.40	2.336	-0.060	-0.39
MT68DM		2.390	-0.083	-0.56	2.280	-0.116	-0.75
NBDUCZ		2.505	0.032	0.22	2.465	0.069	0.45
PANK6K		2.595	0.122	0.82	2.515	0.119	0.77
PLUXYQ	*	2.230	-0.243	-1.64	2.050	-0.346	-2.24
QLB9DP		2.593	0.120	0.81	2.488	0.091	0.59
R3DBN3		2.525	0.052	0.35	2.495	0.099	0.64
RAEPCN		2.305	-0.168	-1.13	2.195	-0.201	-1.30
RGD8NF		2.475	0.002	0.01	2.430	0.034	0.22
THZ96M		2.476	0.003	0.02	2.369	-0.028	-0.18
THZBUR		2.265	-0.208	-1.40	2.205	-0.191	-1.24
TKCQNT		2.492	0.019	0.13	2.447	0.051	0.33
TRAF8H		2.378	-0.095	-0.64	2.224	-0.173	-1.12
U4X2QH		2.365	-0.108	-0.73	2.277	-0.119	-0.77
UGNVZQ		2.535	0.062	0.42	2.395	-0.001	-0.01
UY38TG		2.360	-0.113	-0.76	2.270	-0.126	-0.82



WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
V7J38Q	*	2.641	0.168	1.13	2.431	0.035	0.23
W3HJKH	X	2.345	-0.128	-0.86	2.545	0.149	0.96
WF32DL		2.280	-0.193	-1.30	2.130	-0.266	-1.72
Y3QDDN		2.637	0.164	1.10	2.540	0.144	0.93
Z7LLYA	X	1.887	-0.586	-3.95	1.874	-0.522	-3.38

Grand Means		Summary Statistics	
	2.4729 g/L		2.3961 g/L
Std Dev Btwn Labs			
	0.1483 g/L		0.1545 g/L
Statistics based on 52 of 55 reporting participants			

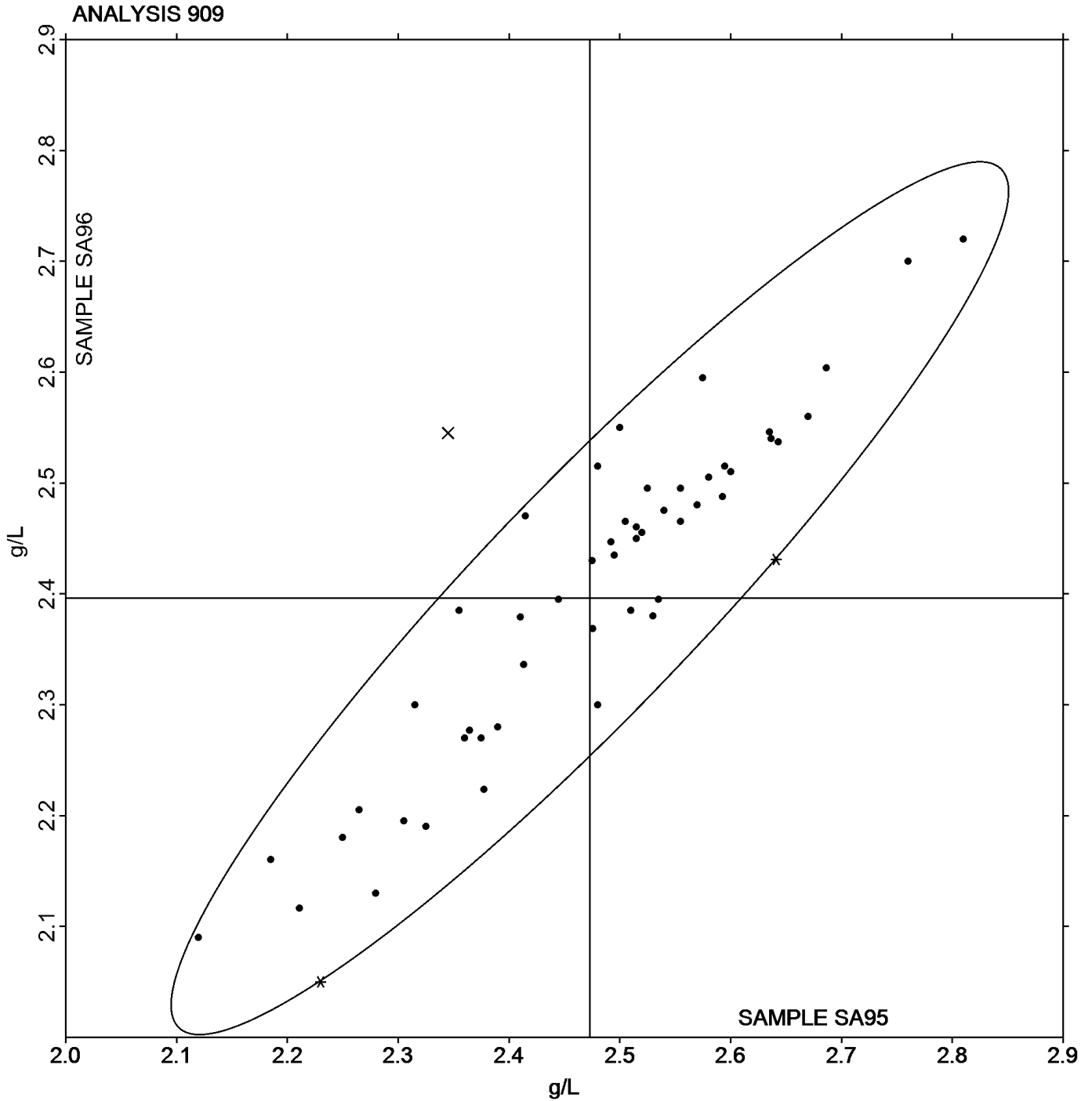
Wines tested: SA95: White Zinfandel; SA96: White Zinfandel

Comments on assigned Data Flags

8J94UZ (X) - Data for both samples are high.

W3HJKH (X) - Inconsistent in testing between samples and inconsistent within the determinations for Sample SA96.

Z7LLYA (X) - Data for both samples are low. Possible Systematic Error.





ASEV-CTS Wine Industry Interlaboratory Testing Program

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Analysis 910 Glucose + Fructose

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2WF2B8	X	31.85	-7.01	-4.05	30.12	-7.25	-4.48
2ZDGLF		37.50	-1.36	-0.79	35.75	-1.62	-1.00
3LC6QG		40.40	1.54	0.89	38.80	1.43	0.88
3N2EZH		38.20	-0.66	-0.38	36.75	-0.62	-0.39
6XDKPH		38.55	-0.31	-0.18	37.60	0.23	0.14
76RNBB		41.50	2.64	1.52	39.30	1.93	1.19
7L2FDF		41.60	2.74	1.58	39.90	2.53	1.56
7R6EN6		38.20	-0.66	-0.38	35.95	-1.42	-0.88
86PGK3		38.08	-0.79	-0.45	36.22	-1.16	-0.72
8J94UZ	X	1.73	-37.13	-21.46	1.79	-35.59	-22.00
93ZAZ6		38.57	-0.29	-0.17	37.06	-0.31	-0.19
9LRF8W		38.95	0.09	0.05	38.15	0.78	0.48
9LRHVF		39.18	0.31	0.18	37.86	0.48	0.30
9PQQ4V		41.56	2.70	1.56	39.85	2.47	1.53
9PQTQE		35.77	-3.10	-1.79	34.65	-2.73	-1.69
9PRQ2B		39.95	1.09	0.63	38.50	1.13	0.70
9RFZBC	*	40.70	1.84	1.06	37.10	-0.27	-0.17
B8L2ZX	*	36.70	-2.16	-1.25	37.30	-0.07	-0.05
BJWEFD		36.90	-1.96	-1.13	35.40	-1.97	-1.22
BW4LWV	X	32.36	-6.50	-3.76	29.29	-8.09	-5.00
CTKRU3		38.15	-0.71	-0.41	37.30	-0.07	-0.05
D6Q2Y6		39.14	0.28	0.16	37.68	0.31	0.19
D6RWKV	*	34.60	-4.26	-2.46	34.20	-3.17	-1.96
DHXAGM		42.20	3.34	1.93	40.50	3.13	1.93
E6L2DV		39.35	0.49	0.28	37.55	0.18	0.11



ASEV-CTS Wine Industry Interlaboratory Testing Program

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Analysis 910 Glucose + Fructose

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
EDECL6		41.90	3.04	1.76	39.25	1.88	1.16
EKZ9PU		40.29	1.43	0.83	38.66	1.28	0.79
F2JN7V		38.88	0.01	0.01	36.67	-0.70	-0.44
G82D6V		36.80	-2.06	-1.19	35.70	-1.67	-1.04
GT6WFX		37.30	-1.56	-0.90	35.25	-2.12	-1.31
H6RNFR		36.95	-1.91	-1.10	35.65	-1.72	-1.07
HLHTLZ		39.18	0.32	0.18	37.98	0.61	0.37
JHDKUV		37.15	-1.71	-0.99	35.85	-1.52	-0.94
JRMMHG		35.74	-3.13	-1.81	33.70	-3.68	-2.27
K976L2		39.75	0.89	0.51	38.20	0.83	0.51
LCYLDL	*	39.45	0.59	0.34	39.55	2.18	1.34
LQZX9K		39.65	0.78	0.45	37.92	0.54	0.33
MNTYDJ		37.40	-1.47	-0.85	35.17	-2.21	-1.37
MT68DM		36.00	-2.86	-1.65	34.50	-2.87	-1.78
NBDUCZ		39.50	0.64	0.37	38.00	0.63	0.39
PANK6K		38.61	-0.25	-0.15	37.30	-0.08	-0.05
PLUXYQ		40.65	1.79	1.03	38.30	0.93	0.57
QLB9DP		40.35	1.49	0.86	38.40	1.03	0.63
R3DBN3		37.70	-1.16	-0.67	36.64	-0.74	-0.46
R3DBQM	X	38.00	-0.86	-0.50	40.00	2.63	1.62
RAEPCN	X	33.96	-4.91	-2.84	36.95	-0.43	-0.27
RGD8NF		38.50	-0.36	-0.21	37.00	-0.37	-0.23
THZ96M		38.90	0.04	0.02	37.60	0.23	0.14
THZBUR		38.85	-0.01	-0.01	37.55	0.18	0.11
TKCQNT		38.00	-0.86	-0.50	37.00	-0.37	-0.23



Analysis 910
Glucose + Fructose

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
U4X2QH		39.79	0.92	0.53	39.48	2.10	1.30
UGNVZQ		40.80	1.94	1.12	39.60	2.23	1.38
UTZZCT		40.60	1.74	1.00	38.70	1.33	0.82
UY38TG		37.45	-1.41	-0.82	35.60	-1.77	-1.10
V7J38Q		39.40	0.54	0.31	38.91	1.54	0.95
W72EMB	X	2.50	-36.36	-21.01	2.30	-35.07	-21.68
WF32DL		38.05	-0.81	-0.47	36.70	-0.67	-0.42
Y3QDDN		41.50	2.64	1.52	39.35	1.98	1.22

Grand Means		Summary Statistics	
	38.862 g/L		37.375 g/L
Std Dev Btwn Labs			1.618 g/L
	1.730 g/L		
Statistics based on 52 of 58 reporting participants			

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel

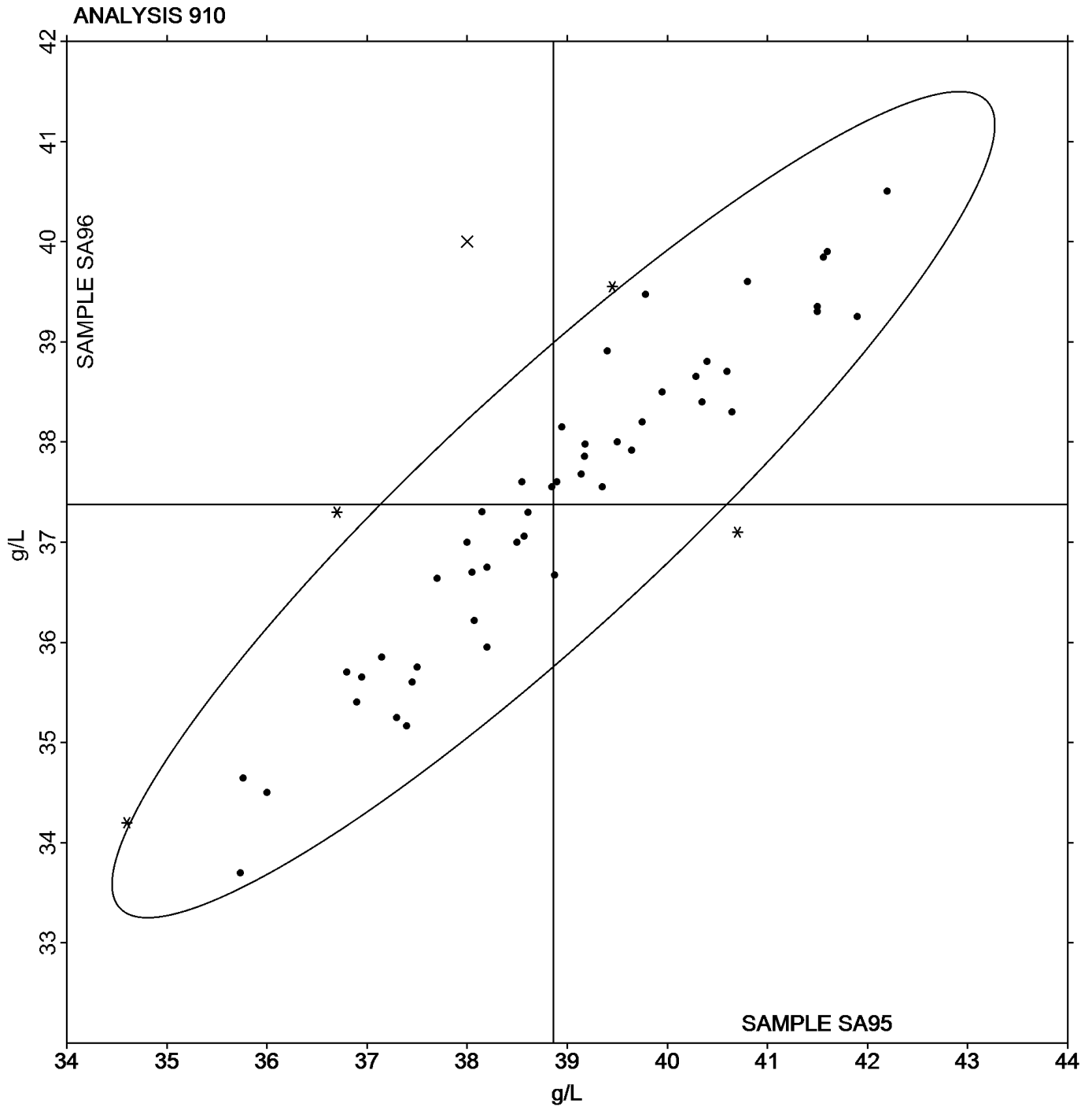
Comments on assigned Data Flags

- 2WF2B8 (X) - Data for both samples are low. Possible Systematic Error.
- 8J94UZ (X) - Data for both samples are low.
- BW4LWV (X) - Data for both samples are low.
- R3DBQM (X) - Inconsistent in testing between samples.
- RAEPCN (X) - Inconsistent in testing between samples, data for Sample SA95 are low.
- W72EMB (X) - Data for both samples are low.



Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA95 <i>White Zinfandel</i>			Sample SA96 <i>White Zinfandel</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Please specify method used	39.50	0.00	0.64	38.00	0.00	0.63	1	1
HPLC	41.56	0.00	2.70	39.85	0.00	2.47	1	2
Enzymatic/Spectrophotometric	38.85	1.67	-0.01	37.34	1.63	-0.03	41	49
FTIR	39.06	1.26	0.19	37.28	1.27	-0.09	5	6





Analysis 911
Copper Content

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
3N2EZH		0.1150	-0.0158	-0.61	0.1200	-0.0118	-0.50
6MWVQC		0.1250	-0.0058	-0.23	0.1260	-0.0058	-0.25
6XDKPH		0.1385	0.0077	0.30	0.1360	0.0042	0.18
76RNBB		0.1250	-0.0058	-0.23	0.1300	-0.0018	-0.08
7L2FDF		0.1300	-0.0008	-0.03	0.1400	0.0082	0.35
86PGK3		0.1170	-0.0138	-0.54	0.1180	-0.0138	-0.59
93ZAZ6		0.1200	-0.0108	-0.42	0.1300	-0.0018	-0.08
9PQQ4V		0.1450	0.0142	0.55	0.1300	-0.0018	-0.08
9RFZBC	*	0.0850	-0.0458	-1.78	0.1250	-0.0068	-0.29
D6Q2Y6	X	0.4105	0.2797	10.85	0.4100	0.2782	11.78
E6L2DV		0.1950	0.0642	2.49	0.1950	0.0632	2.68
FZN629		0.1320	0.0012	0.05	0.1390	0.0072	0.30
G82D6V		0.1400	0.0092	0.36	0.1400	0.0082	0.35
HUdTZT		0.1200	-0.0108	-0.42	0.1200	-0.0118	-0.50
R3DBN3		0.1250	-0.0058	-0.23	0.1300	-0.0018	-0.08
R3DBQM		0.1500	0.0192	0.74	0.1450	0.0132	0.56
UTZZCT		0.1350	0.0042	0.16	0.1250	-0.0068	-0.29
UY38TG		0.1300	-0.0008	-0.03	0.1100	-0.0218	-0.93
V7J38Q		0.1750	0.0442	1.71	0.1700	0.0382	1.62
Y3QDDN		0.0830	-0.0478	-1.85	0.0760	-0.0558	-2.37

Grand Means		Summary Statistics	
	0.13082 mg/L		0.13184 mg/L
Stnd Dev Btwn Labs			0.02360 mg/L
	0.02578 mg/L		
Statistics based on 19 of 20 reporting participants			

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel



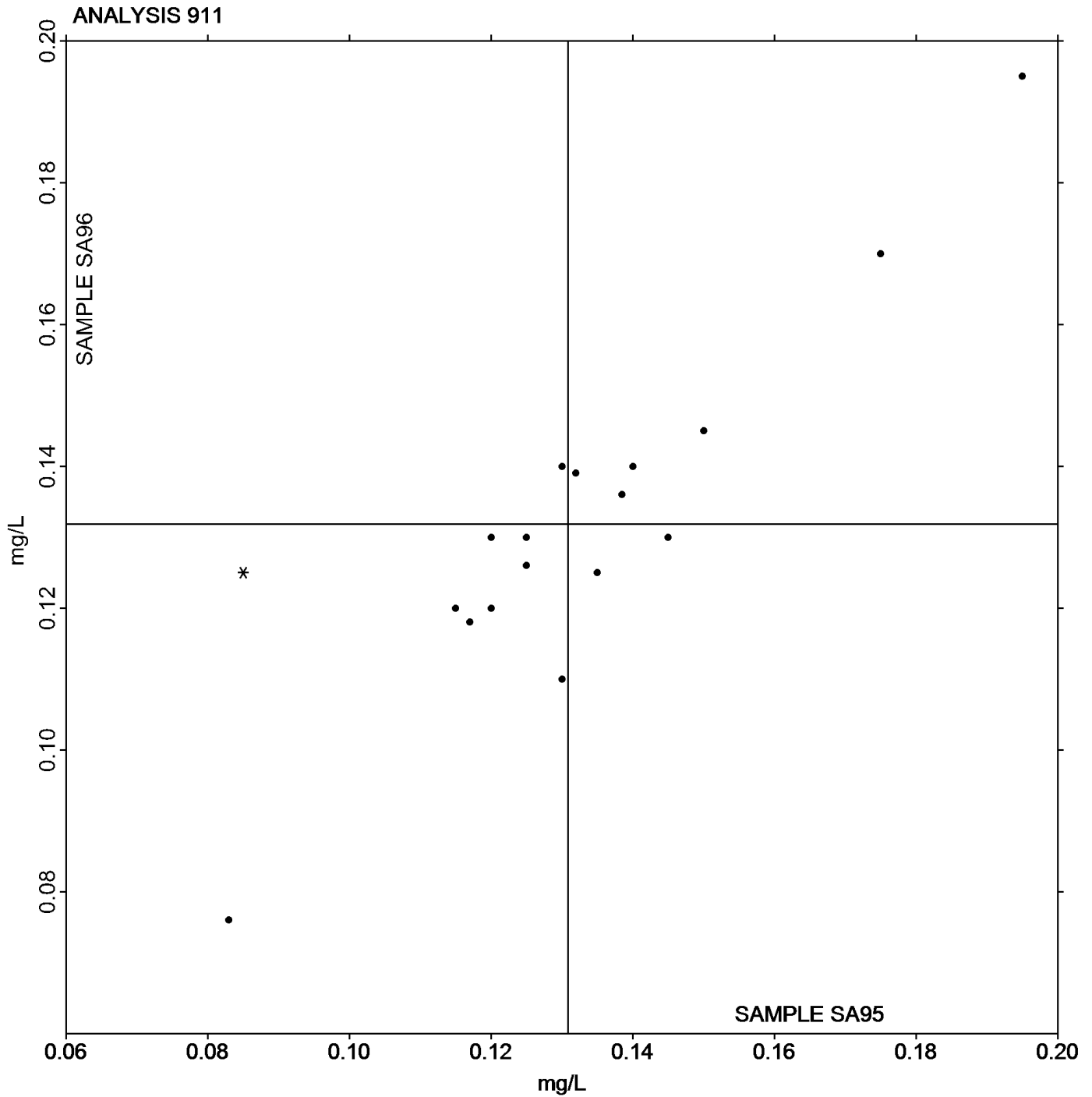
Analysis 911
Copper Content

Comments on assigned Data Flags

D6Q2Y6 (X) - Data for both samples are high.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA95 <i>White Zinfandel</i>			Sample SA96 <i>White Zinfandel</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Please specify method used	0.1375	0.0177	0.0067	0.1355	0.0134	0.0037	2	3
Atomic Absorption Spectroscopy	0.1392	0.0300	0.0083	0.1342	0.0318	0.0024	10	11
ICP-OES	0.1205	0.0067	-0.0103	0.1245	0.0104	-0.0073	4	4
Other _____	0.1260	0.0085	-0.0048	0.1345	0.0064	0.0027	2	2



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



Analysis 912

Potassium (K) Content

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2ZDGLF		714.0	-52.9	-0.51	732.5	-41.9	-0.35
3N2EZH		673.5	-93.4	-0.89	667.5	-106.9	-0.89
7L2FDF		722.0	-44.9	-0.43	690.0	-84.4	-0.70
86PGK3		855.0	88.1	0.84	840.0	65.6	0.54
93ZAZ6		781.0	14.1	0.13	782.0	7.6	0.06
9PQQ4V		935.5	168.6	1.61	941.5	167.1	1.38
D6Q2Y6	*	979.0	212.1	2.03	1,078.5	304.1	2.52
G82D6V		745.0	-21.9	-0.21	805.0	30.6	0.25
HUdTZT		647.5	-119.4	-1.14	640.0	-134.4	-1.11
M9FQAU		695.0	-71.9	-0.69	672.5	-101.9	-0.84
NBDUCZ		906.0	139.1	1.33	877.0	102.6	0.85
R3DBN3		656.5	-110.4	-1.05	650.0	-124.4	-1.03
R3DBQM		685.0	-81.9	-0.78	720.0	-54.4	-0.45
UY38TG		746.0	-20.9	-0.20	772.0	-2.4	-0.02
V7J38Q		762.5	-4.4	-0.04	747.5	-26.9	-0.22

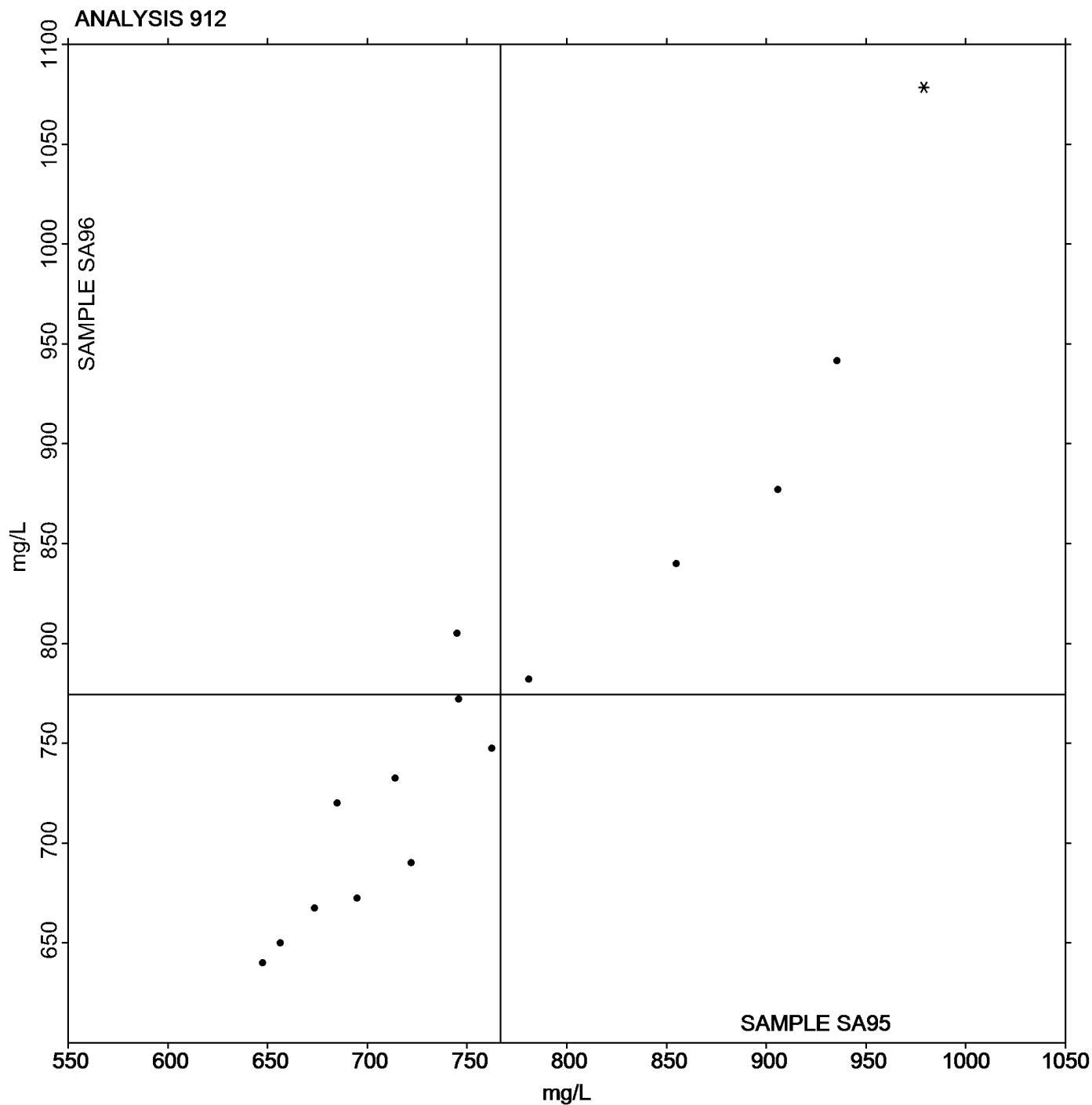
Grand Means		Summary Statistics	
	766.90 mg/L		774.40 mg/L
Stnd Dev Btwn Labs	104.72 mg/L		120.75 mg/L
Statistics based on 15 of 15 reporting participants			

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel



Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA95 <i>White Zinfandel</i>			Sample SA96 <i>White Zinfandel</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Atomic Absorption Spectroscopy	715.0	48.4	-51.9	710.5	58.5	-63.9	4	5
ICP-OES	681.0	37.8	-85.9	665.8	25.0	-108.6	3	3
FTIR	812.4	102.0	45.5	829.8	86.9	55.4	4	4
Other _____	790.7	110.8	23.8	793.0	79.1	18.6	3	3



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



ASEV-CTS Wine Industry Interlaboratory Testing Program

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Analysis 915 A420nm (1cm path)

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2ZDGLF		0.2555	-0.0297	-1.46	0.2450	-0.0328	-1.69
3N2EZH		0.2550	-0.0302	-1.49	0.2550	-0.0228	-1.17
6MWVQC		0.2720	-0.0132	-0.65	0.2500	-0.0278	-1.43
6XDKPH		0.2800	-0.0052	-0.26	0.2800	0.0022	0.11
7L2FDF		0.2850	-0.0002	-0.01	0.2760	-0.0018	-0.09
7R6EN6	X	0.5375	0.2523	12.40	0.4760	0.1982	10.20
86PGK3		0.2655	-0.0197	-0.97	0.2650	-0.0128	-0.66
8J94UZ	*	0.3465	0.0613	3.01	0.3285	0.0507	2.61
93ZAZ6		0.2805	-0.0047	-0.23	0.2745	-0.0033	-0.17
9LRHVF		0.2795	-0.0057	-0.28	0.2705	-0.0073	-0.38
9PQQ4V		0.2700	-0.0152	-0.75	0.2700	-0.0078	-0.40
9PQTQE		0.3090	0.0238	1.17	0.2900	0.0122	0.63
9PRQ2B		0.2895	0.0043	0.21	0.2750	-0.0028	-0.15
9RFZBC		0.2600	-0.0252	-1.24	0.2550	-0.0228	-1.17
BJWEFD		0.2770	-0.0082	-0.41	0.2690	-0.0088	-0.45
D6Q2Y6		0.2918	0.0065	0.32	0.2843	0.0064	0.33
DHXAGM		0.2860	0.0008	0.04	0.2780	0.0002	0.01
E6L2DV		0.2855	0.0003	0.01	0.2790	0.0012	0.06
EKZ9PU		0.2875	0.0023	0.11	0.2805	0.0027	0.14
F2JN7V		0.2930	0.0078	0.38	0.2890	0.0112	0.57
G82D6V		0.2760	-0.0092	-0.45	0.2695	-0.0083	-0.43
GT6WFX		0.2895	0.0043	0.21	0.2805	0.0027	0.14
J67APU		0.2915	0.0063	0.31	0.2840	0.0062	0.32
JHDKUV		0.2840	-0.0012	-0.06	0.2790	0.0012	0.06
JRMMHG	X	0.0433	-0.2420	-11.89	0.0458	-0.2321	-11.94



ASEV-CTS Wine Industry Interlaboratory Testing Program

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Spring 2015

Analysis 915 A420nm (1cm path)

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
NBDUCZ		0.2775	-0.0077	-0.38	0.2760	-0.0018	-0.09
PANK6K		0.2575	-0.0277	-1.36	0.2490	-0.0288	-1.48
PLUXYQ		0.2920	0.0068	0.33	0.2810	0.0032	0.16
R3DBN3		0.2805	-0.0047	-0.23	0.2745	-0.0033	-0.17
R3DBQM		0.3070	0.0218	1.07	0.3120	0.0342	1.76
RAEPCN	X	0.1500	-0.1352	-6.65	0.1490	-0.1288	-6.63
RGD8NF		0.3250	0.0398	1.95	0.3170	0.0392	2.02
THZBUR		0.2950	0.0098	0.48	0.2785	0.0007	0.03
TRAF8H	*	0.3300	0.0448	2.20	0.3320	0.0542	2.79
UGNVZQ		0.2915	0.0063	0.31	0.2840	0.0062	0.32
UTZZCT	*	0.3097	0.0244	1.20	0.2847	0.0069	0.35
UY38TG		0.2550	-0.0302	-1.49	0.2500	-0.0278	-1.43
V7J38Q		0.2785	-0.0067	-0.33	0.2695	-0.0083	-0.43
W3HJKH		0.2650	-0.0202	-1.00	0.2625	-0.0153	-0.79
W72EMB		0.2710	-0.0142	-0.70	0.2765	-0.0013	-0.07
Z7LLYA		0.2943	0.0091	0.45	0.2832	0.0054	0.28

Grand Means		Summary Statistics	
0.28524	Absorbance Units	0.27783	Absorbance Units
Std Dev Btwn Labs		0.01943	Absorbance Units
0.02034	Absorbance Units	Statistics based on 38 of 41 reporting participants	

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel



Comments on assigned Data Flags

7R6EN6 (X) - Data for both samples are high.

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

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

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA95 <i>White Zinfandel</i>			Sample SA96 <i>White Zinfandel</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Code not used by CTS at this time	0.2815	0.0158	-0.0037	0.2746	0.0154	-0.0032	35	41



ASEV-CTS Wine Industry Interlaboratory Testing Program

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Analysis 916 A520nm (1cm path)

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2ZDGLF		0.1925	-0.0233	-1.40	0.1810	-0.0247	-1.49
3N2EZH		0.2000	-0.0158	-0.95	0.2000	-0.0057	-0.35
6MWVQC		0.2070	-0.0088	-0.53	0.1840	-0.0217	-1.31
6XDKPH		0.2100	-0.0058	-0.35	0.2100	0.0043	0.26
7L2FDF		0.2120	-0.0038	-0.23	0.2020	-0.0037	-0.23
7R6EN6	X	0.6210	0.4052	24.37	0.5660	0.3603	21.75
86PGK3		0.2025	-0.0133	-0.80	0.1965	-0.0092	-0.56
8J94UZ	*	0.2670	0.0512	3.08	0.2465	0.0408	2.46
93ZAZ6		0.2095	-0.0063	-0.38	0.2000	-0.0057	-0.35
9LRHVF		0.2130	-0.0028	-0.17	0.2065	0.0008	0.05
9PQQ4V		0.2100	-0.0058	-0.35	0.1900	-0.0157	-0.95
9PQTQE	*	0.2450	0.0292	1.76	0.2130	0.0073	0.44
9PRQ2B		0.2215	0.0057	0.34	0.2020	-0.0037	-0.23
9RFZBC		0.1950	-0.0208	-1.25	0.2000	-0.0057	-0.35
BJWEFD		0.2060	-0.0098	-0.59	0.1940	-0.0117	-0.71
D6Q2Y6		0.2180	0.0022	0.13	0.2069	0.0012	0.07
DHXAGM		0.2050	-0.0108	-0.65	0.1950	-0.0107	-0.65
E6L2DV		0.2120	-0.0038	-0.23	0.2020	-0.0037	-0.23
EKZ9PU		0.2140	-0.0018	-0.11	0.2050	-0.0007	-0.04
F2JN7V		0.2180	0.0022	0.13	0.2105	0.0048	0.29
G82D6V		0.2085	-0.0073	-0.44	0.1955	-0.0102	-0.62
GT6WFX		0.2140	-0.0018	-0.11	0.2015	-0.0042	-0.26
J67APU		0.2170	0.0012	0.07	0.2055	-0.0002	-0.01
JHDKUV		0.2105	-0.0053	-0.32	0.2025	-0.0032	-0.20
JRMMHG		0.2216	0.0058	0.35	0.2039	-0.0018	-0.11



ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #049
Spring 2015

Analysis 916
A520nm (1cm path)

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
NBDUCZ		0.2050	-0.0108	-0.65	0.2010	-0.0047	-0.29
PANK6K		0.2090	-0.0068	-0.41	0.2095	0.0038	0.23
PLUXYQ		0.2185	0.0027	0.16	0.2060	0.0003	0.02
R3DBN3		0.2095	-0.0063	-0.38	0.2005	-0.0052	-0.32
R3DBQM	*	0.2320	0.0162	0.97	0.2425	0.0368	2.22
RAEPCN		0.2200	0.0042	0.25	0.2220	0.0163	0.98
RGD8NF		0.2495	0.0337	2.03	0.2365	0.0308	1.86
THZBUR		0.2205	0.0047	0.28	0.2010	-0.0047	-0.29
TRAF8H	*	0.2600	0.0442	2.66	0.2590	0.0533	3.22
UGNVZQ		0.2190	0.0032	0.19	0.2080	0.0023	0.14
UTZZCT		0.2374	0.0216	1.30	0.2094	0.0037	0.22
UY38TG		0.2000	-0.0158	-0.95	0.2000	-0.0057	-0.35
V7J38Q		0.2115	-0.0043	-0.26	0.1975	-0.0082	-0.50
W3HJKH		0.2035	-0.0123	-0.74	0.1975	-0.0082	-0.50
W72EMB		0.2195	0.0037	0.22	0.2150	0.0093	0.56
Z7LLYA		0.1876	-0.0282	-1.70	0.1706	-0.0351	-2.12

Grand Means		Summary Statistics	
0.21580	Absorbance Units	0.20574	Absorbance Units
Std Dev Btwn Labs			
0.01663	Absorbance Units	0.01656	Absorbance Units
Statistics based on 40 of 41 reporting participants			

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel

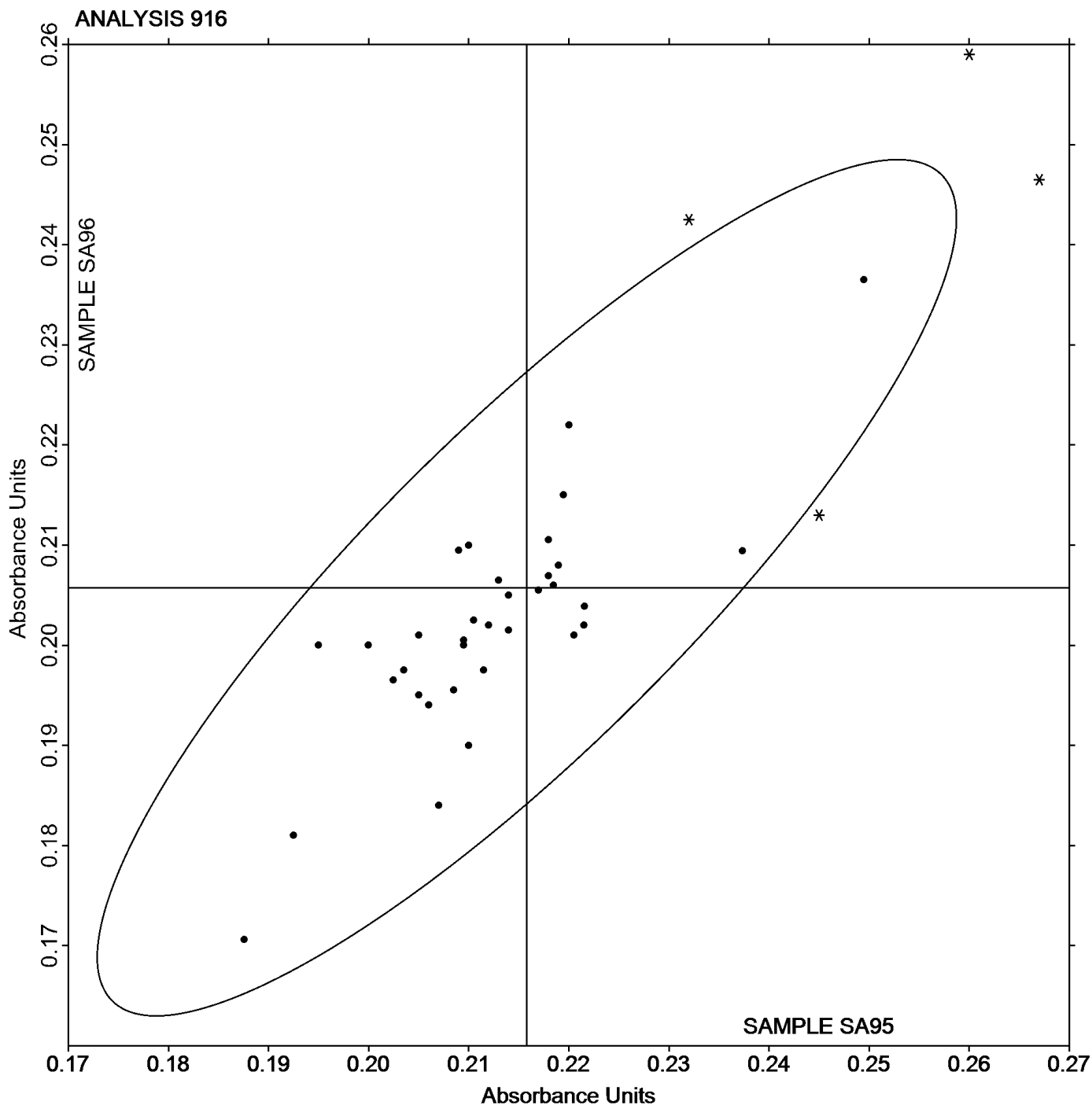
Comments on assigned Data Flags

7R6EN6 (X) - Data for both samples are high.



Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA95 <i>White Zinfandel</i>			Sample SA96 <i>White Zinfandel</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Code not used by CTS at this time	0.2119	0.0114	-0.0039	0.2019	0.0110	-0.0038	36	41

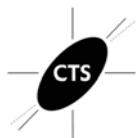




ASEV-CTS Wine Industry Interlaboratory Testing Program
Research Property 950
Research Property - Turbidity

Report #049
Spring 2015

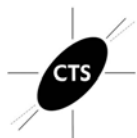
WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Target Value	% Diff from Target Value	Lab Mean	Diff from Target Value	% Diff from Target Value
2ZDGLF		0.1035	-0.1005	-49.3%	0.2040	0.0068	3.4%
3LC6QG		0.2355	0.0315	15.4%	0.2545	0.0573	29.1%
6MWVQC		0.2000	-0.0040	-2.0%	0.3000	0.1028	52.1%
6XDKPH		0.1750	-0.0290	-14.2%	0.2400	0.0428	21.7%
76RNBB		0.2955	0.0915	44.9%	0.1745	-0.0227	-11.5%
7L2FDF		0.2000	-0.0040	-2.0%	0.2000	0.0028	1.4%
7R6EN6		0.1840	-0.0200	-9.8%	0.1480	-0.0492	-24.9%
86PGK3		0.2620	0.0580	28.4%	0.2180	0.0208	10.5%
8J94UZ	X	1.4500	1.2460	610.8%	0.3000	0.1028	52.1%
93ZAZ6		0.2700	0.0660	32.4%	0.3150	0.1178	59.7%
9LRHVF		0.1870	-0.0170	-8.3%	0.1580	-0.0392	-19.9%
9PQQ4V	X	0.2600	0.0560	27.5%	0.8050	0.6078	308.2%
9PQTQE	X	0.1850	-0.0190	-9.3%	0.4750	0.2778	140.9%
9PRQ2B		0.2295	0.0255	12.5%	0.2040	0.0068	3.4%
9RFZBC	X	0.5100	0.3060	150.0%	0.5750	0.3778	191.6%
B8L2ZX		0.1350	-0.0690	-33.8%	0.1700	-0.0272	-13.8%
BJWEFD		0.1490	-0.0550	-27.0%	0.1295	-0.0677	-34.3%
CTKRU3		0.0150	-0.1890	-92.6%	0.0450	-0.1522	-77.2%
D6Q2Y6		0.1950	-0.0090	-4.4%	0.1975	0.0003	0.2%
D6RWKV		0.2095	0.0055	2.7%	0.2165	0.0193	9.8%
DHXAGM		0.1400	-0.0640	-31.4%	0.1400	-0.0572	-29.0%
E6L2DV		0.2800	0.0760	37.3%	0.1750	-0.0222	-11.3%
EDECL6	X	0.6650	0.4610	226.0%	0.4850	0.2878	145.9%



ASEV-CTS Wine Industry Interlaboratory Testing Program
Research Property 950
Research Property - Turbidity

Report #049
Spring 2015

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Target Value	% Diff from Target Value	Lab Mean	Diff from Target Value	% Diff from Target Value
EKZ9PU		0.1985	-0.0055	-2.7%	0.1990	0.0018	0.9%
F2JN7V		0.1930	-0.0110	-5.4%	0.1885	-0.0087	-4.4%
G82D6V		0.0160	-0.1880	-92.2%	0.0190	-0.1782	-90.4%
GT6WFX		0.1555	-0.0485	-23.8%	0.1925	-0.0047	-2.4%
H6RNFR	M	0.2000	-0.0040	-2.0%	No data reported for this sample %		
HLHTLZ		0.2000	-0.0040	-2.0%	0.1850	-0.0122	-6.2%
HUDTZT		0.0800	-0.1240	-60.8%	0.0650	-0.1322	-67.0%
J67APU		0.1955	-0.0085	-4.2%	0.1965	-0.0007	-0.4%
JHDKUV		0.2250	0.0210	10.3%	0.2400	0.0428	21.7%
JRMMHG	X	0.3200	0.1160	56.9%	0.4750	0.2778	140.9%
LCYLDL		0.0970	-0.1070	-52.5%	0.1000	-0.0972	-49.3%
LQZX9K		0.2715	0.0675	33.1%	0.2310	0.0338	17.1%
MNTYDJ		0.1130	-0.0910	-44.6%	0.1520	-0.0452	-22.9%
NBDUCZ		0.3000	0.0960	47.1%	0.3000	0.1028	52.1%
PANK6K	X	0.6765	0.4725	231.6%	0.2790	0.0818	41.5%
QLB9DP	X	0.5950	0.3910	191.7%	0.5800	0.3828	194.1%
R3DBN3		0.2850	0.0810	39.7%	0.2550	0.0578	29.3%
R6G7AQ		0.3850	0.1810	88.7%	0.2850	0.0878	44.5%
RAEPCN		0.2900	0.0860	42.2%	0.2300	0.0328	16.6%
RGD8NF	X	1.6400	1.4360	703.9%	0.2065	0.0093	4.7%
THZBUR		0.2205	0.0165	8.1%	0.1885	-0.0087	-4.4%
TKCQNT	X	0.6910	0.4870	238.7%	0.5145	0.3173	160.9%
TRAF8H	M	0.2500	0.0460	22.5%	No data reported for this sample %		



ASEV-CTS Wine Industry Interlaboratory Testing Program
Research Property 950
Research Property - Turbidity

Report #049
Spring 2015

WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Target Value	% Diff from Target Value	Lab Mean	Diff from Target Value	% Diff from Target Value
U4X2QH		0.3750	0.1710	83.8%	0.2750	0.0778	39.5%
UTZZCT		0.3170	0.1130	55.4%	0.3205	0.1233	62.5%
UY38TG		0.1100	-0.0940	-46.1%	0.2000	0.0028	1.4%
V7J38Q	X	0.4950	0.2910	142.6%	0.2950	0.0978	49.6%
W72EMB		0.1900	-0.0140	-6.9%	0.1760	-0.0212	-10.8%
WF32DL		0.3000	0.0960	47.1%	0.2500	0.0528	26.8%
Y3QDDN		0.2545	0.0505	24.8%	0.2545	0.0573	29.1%
YEJT3P		0.2400	0.0360	17.6%	0.2400	0.0428	21.7%
Z7LLYA		0.0900	-0.1140	-55.9%	0.0500	-0.1472	-74.6%

Research Property Target Value		
Target Value	0.20400 NTU	0.19720 NTU
<p align="center"><i>For Test 950, CTS has chosen not to designate a target value for this property instead of using an average value.</i></p>		

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel

Consensus Average (may differ from target value)	0.20399 NTU	0.19720 NTU
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This consensus average is based on 42 reporting participants.



Comments on assigned Data Flags

8J94UZ (X) - High data for Sample SA95. Also inconsistent in testing within the determinations for both samples.

9PQQ4V (X) - High data for Sample SA96.

9PQTQE (X) - Inconsistent in testing between samples, data for Sample SA96 are high.

9RFZBC (X) - Data for both samples are high.

EDECL6 (X) - Data for both samples are high.

H6RNFR (M) - Laboratory did not submit data for Sample SA96.

JRMMHG (X) - High data for Sample SA96.

PANK6K (X) - High data for Sample SA95.

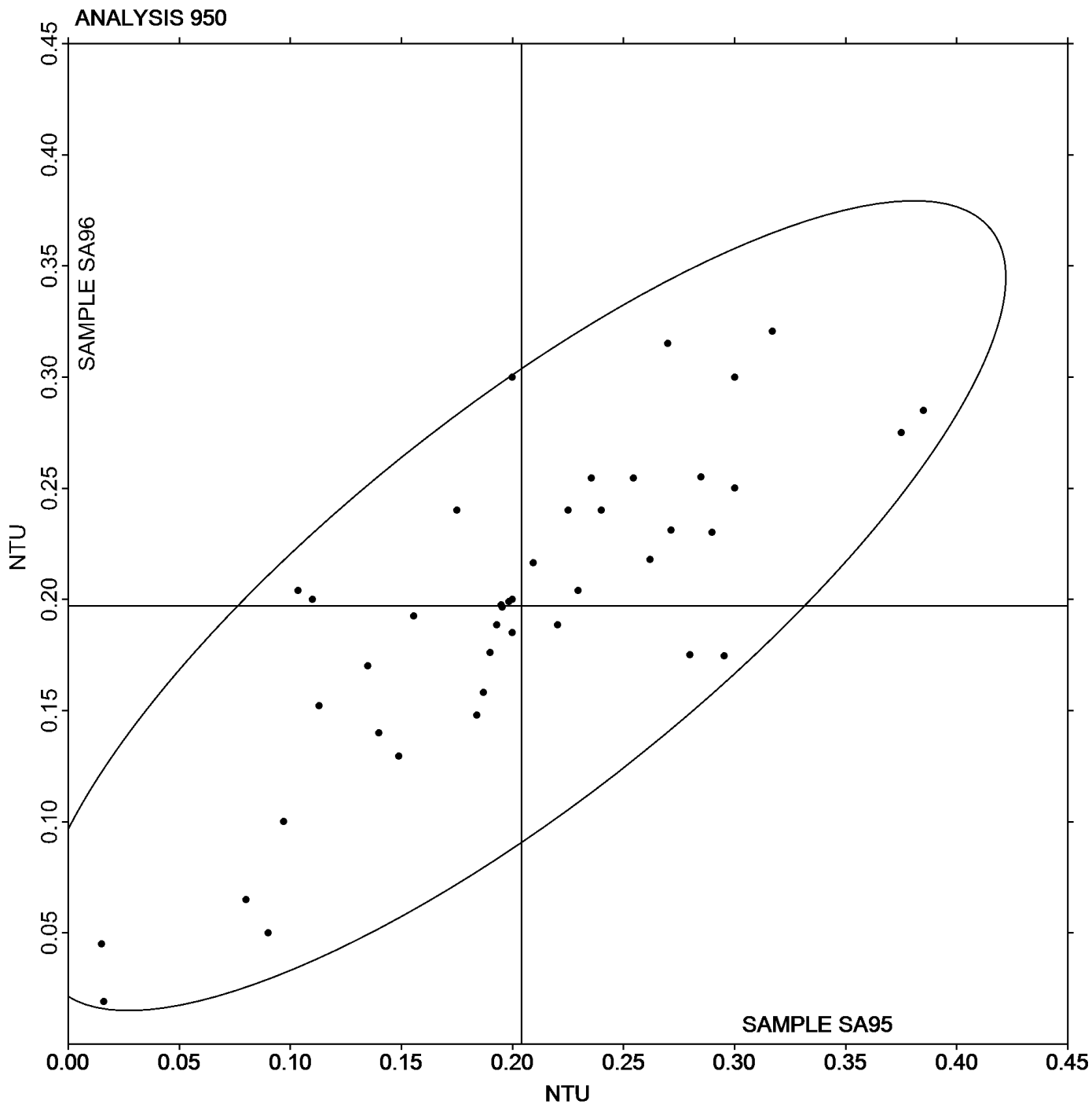
QLB9DP (X) - Data for both samples are high.

RGD8NF (X) - High data for Sample SA95.

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

TRAF8H (M) - Laboratory did not submit data for Sample SA96.

V7J38Q (X) - Inconsistent in testing between samples, data for Sample SA95 are high.





ASEV-CTS Wine Industry Interlaboratory Testing Program
Research Property 951
Research Property: Methanol Content

Report #049
Spring 2015

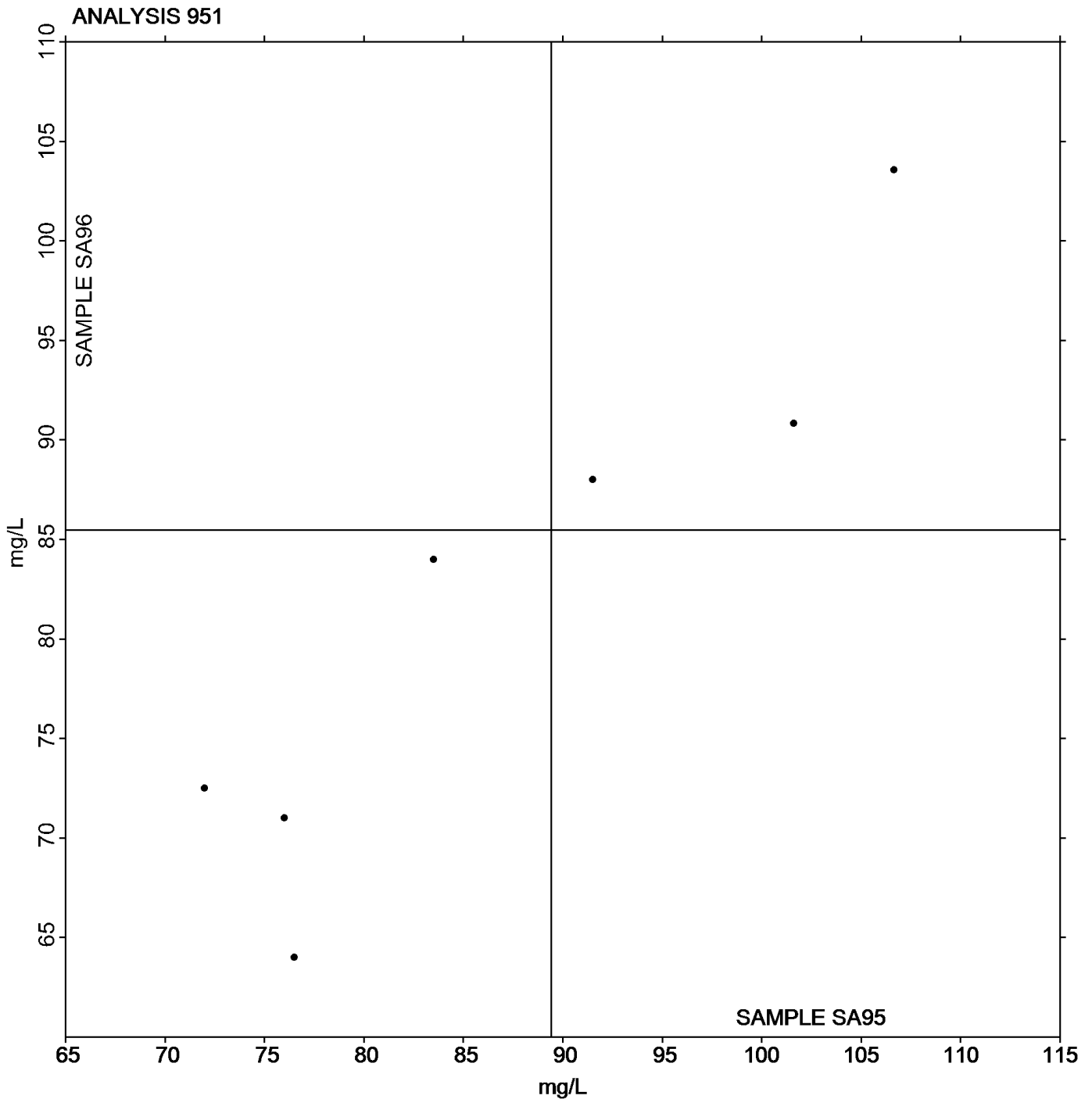
WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Target Value	% Diff from Target Value	Lab Mean	Diff from Target Value	% Diff from Target Value
7L2FDF		76.00	-13.41	-15.0%	71.00	-14.48	-16.9%
86PGK3		72.00	-17.41	-19.5%	72.50	-12.98	-15.2%
93ZAZ6		107.50	18.09	20.2%	110.00	24.52	28.7%
9PQQ4V		101.61	12.20	13.6%	90.82	5.34	6.2%
F2JN7V		106.65	17.24	19.3%	103.55	18.07	21.1%
FZN629		91.50	2.09	2.3%	88.00	2.52	2.9%
R3DBN3		76.50	-12.91	-14.4%	64.00	-21.48	-25.1%
R3DBQM		83.50	-5.91	-6.6%	84.00	-1.48	-1.7%

Research Property Target Value		
Target Value	89.408 mg/L	85.484 mg/L
<p align="center"><i>For Test 951, CTS has chosen not to designate a target value for this property instead of using an average value.</i></p>		

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel

Consensus Average (may differ from target value)	89.408 mg/L	85.484 mg/L
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This consensus average is based on 8 reporting participants.



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



WebCode	Data Flag	Sample SA95			Sample SA96		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
76RNBB	X	1.010	-7.294	-54.78	1.009	-7.437	-132.65
7L2FDF	X	16.450	8.146	61.18	16.840	8.393	149.70
86PGK3		8.370	0.066	0.49	8.560	0.113	2.02
9LRHVF		8.250	-0.054	-0.41	8.450	0.003	0.06
9PQQ4V		8.290	-0.014	-0.11	8.395	-0.052	-0.92
FZN629		8.300	-0.004	-0.03	8.500	0.053	0.95
M9FQAU		8.250	-0.054	-0.41	8.400	-0.047	-0.83
NBDUCZ		8.320	0.016	0.12	8.460	0.013	0.24
R3DBQM		8.600	0.296	2.22	8.400	-0.047	-0.83
RAEPCN		8.100	-0.204	-1.54	8.400	-0.047	-0.83
V7J38Q		8.260	-0.044	-0.33	8.455	0.008	0.15

Research Property Target Value

Target Value

8.3044

Percent of volume

8.4467

Percent of volume

For Test 952, CTS has chosen not to designate a target value for this property instead of using an average value.

Wines tested: SA95: White Zinfandel; SA96: White Zinfandel

Consensus Average
(may differ from target value)

8.3044

Percent of volume

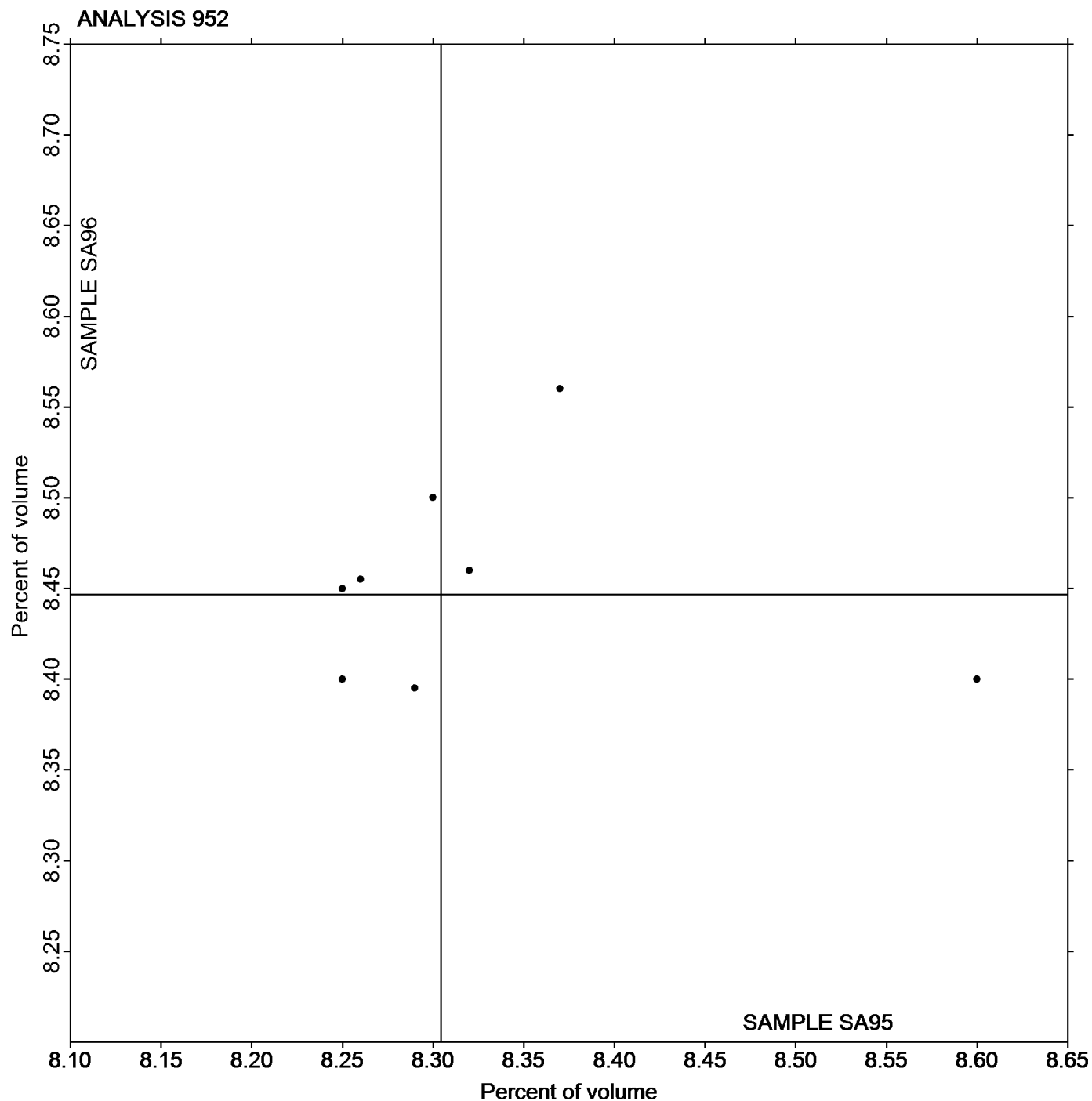
8.4467 Percent of volume

This consensus average is based on 9 reporting participants.

Comments on assigned Data Flags

76RNBB (X) - Data for both samples are low.

7L2FDF (X) - Data for both samples are high.



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