



Wine Industry Interlaboratory Program

Summary Report #028- Spring 2008

[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>Titratable 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>950</u>	<u>Research Property: Copper (Cu) Content</u>
<u>951</u>	<u>Research: Potassium Sorbate as sorbic acid</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 Testing Guidance Committee (LPTGC) of the Technical Projects Committee (TPC). 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 55 countries, currently participate in the CTS programs.

For further information concerning this report contact:

Collaborative Testing Services, Inc.
21331 Gentry Drive
Sterling, Virginia 20166 USA

+1-571-434-1925
FAX #: +1-571-434-1937
wine@cts-interlab.com

(Toll-free fax within the U.S.: 1-866-fax-2cts)

Office Hours: 8:00 a.m. - 4:30 p.m. ET

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

Analysis 901

Ethanol (% of volume)

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
29A5ZN		9.665	0.005	0.06	9.590	0.009	0.11
2REKEW	X	9.640	-0.020	-0.22	9.340	-0.241	-3.01
31W2AV		9.470	-0.190	-2.12	9.420	-0.161	-2.01
3MPJX8		9.455	-0.205	-2.29	9.420	-0.161	-2.01
3P9DSN		9.605	-0.055	-0.61	9.480	-0.101	-1.26
4N1USD	X	9.400	-0.260	-2.90	9.600	0.019	0.24
6MEY54		9.700	0.040	0.45	9.570	-0.011	-0.14
6UB8FF	X	10.015	0.355	3.97	10.035	0.454	5.67
7G1868		9.680	0.020	0.23	9.630	0.049	0.61
7P3CE5		9.760	0.100	1.12	9.625	0.044	0.55
7UFTD9		9.695	0.035	0.39	9.670	0.089	1.11
8ETTF1		9.730	0.070	0.78	9.730	0.149	1.86
8WUZR8		9.685	0.025	0.28	9.600	0.019	0.24
8WV6V9		9.630	-0.030	-0.33	9.575	-0.006	-0.07
9RGJT4		9.730	0.070	0.78	9.640	0.059	0.74
9YJN22	X	10.000	0.340	3.80	9.900	0.319	3.98
BALY8M		9.875	0.215	2.40	9.720	0.139	1.74
BAZYZJ	X	10.100	0.440	4.92	10.100	0.519	6.48
BR2AET		9.730	0.070	0.78	9.575	-0.006	-0.07
CHFF14		9.650	-0.010	-0.11	9.550	-0.031	-0.39
CK1AVJ		9.665	0.005	0.06	9.505	-0.076	-0.95
CWPYDR		9.600	-0.060	-0.67	9.600	0.019	0.24
DABDFH		9.645	-0.015	-0.17	9.525	-0.056	-0.70
DVB3NX		9.510	-0.150	-1.67	9.470	-0.111	-1.39
E74DMB		9.660	0.000	0.00	9.555	-0.026	-0.32
E7RPW5		9.710	0.050	0.56	9.530	-0.051	-0.64
FGKKY5	X	9.400	-0.260	-2.90	9.300	-0.281	-3.51
FQ8QG5	X	9.300	-0.360	-4.02	9.350	-0.231	-2.89
GNNVLQ		9.670	0.010	0.11	9.625	0.044	0.55
HGATG7		9.705	0.045	0.50	9.600	0.019	0.24
HM9FVZ		9.700	0.040	0.45	9.600	0.019	0.24
HWJYV6		9.675	0.015	0.17	9.550	-0.031	-0.39
JND1TU	X	10.850	1.190	13.29	10.900	1.319	16.47
JP2CES		9.760	0.100	1.12	9.715	0.134	1.67
KJSKS1	X	9.300	-0.360	-4.02	9.250	-0.331	-4.13

ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 901

Ethanol (% of volume)

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
L6CVBH		9.695	0.035	0.39	9.605	0.024	0.30
LDE4TW		9.580	-0.080	-0.89	9.530	-0.051	-0.64
LGNN4W		9.650	-0.010	-0.11	9.575	-0.006	-0.07
LK8HYB		9.602	-0.058	-0.65	9.538	-0.043	-0.54
LKBLTV		9.680	0.020	0.23	9.620	0.039	0.49
LTPDHX		9.550	-0.110	-1.23	9.570	-0.011	-0.14
M45LUS		9.760	0.100	1.12	9.660	0.079	0.99
MFT6YE		9.630	-0.030	-0.33	9.595	0.014	0.17
ML7T2J	*	9.800	0.140	1.57	9.800	0.219	2.74
PN9199		9.575	-0.085	-0.95	9.455	-0.126	-1.57
Q191GJ		9.600	-0.060	-0.67	9.600	0.019	0.24
Q7ZUWA		9.660	0.000	0.00	9.550	-0.031	-0.39
QDT4QN		9.785	0.125	1.40	9.700	0.119	1.49
QRU4XX	*	9.400	-0.260	-2.90	9.450	-0.131	-1.64
QXP7L4		9.620	-0.040	-0.44	9.585	0.004	0.05
R7S8EU		9.720	0.060	0.67	9.665	0.084	1.05
RLRPDN		9.695	0.035	0.39	9.605	0.024	0.30
TAXJCE	*	9.780	0.120	1.34	9.570	-0.011	-0.14
TBY2N4		9.805	0.145	1.62	9.680	0.099	1.24
TXEG3A		9.595	-0.065	-0.72	9.560	-0.021	-0.26
UEKGUW	X	10.100	0.440	4.92	10.000	0.419	5.23
UPYKJP		9.680	0.020	0.23	9.605	0.024	0.30
UVUM8V		9.660	0.000	0.00	9.605	0.024	0.30
V25SED		9.500	-0.160	-1.78	9.500	-0.081	-1.01
VBZNZG		9.715	0.055	0.62	9.605	0.024	0.30
VF19R5		9.670	0.010	0.11	9.585	0.004	0.05
VJL4LK		9.680	0.020	0.23	9.585	0.004	0.05
VQG6AR		9.785	0.125	1.40	9.725	0.144	1.80
WXKBDK		9.665	0.005	0.06	9.570	-0.011	-0.14
XATAX4		9.735	0.075	0.84	9.670	0.089	1.11
Y9N4P3		9.635	-0.025	-0.28	9.605	0.024	0.30
YC6QDW		9.730	0.070	0.78	9.630	0.049	0.61
YFRJ8B	X	9.600	-0.060	-0.67	9.700	0.119	1.49
YMLMXH		9.585	-0.075	-0.84	9.430	-0.151	-1.89
YTBFC9		9.530	-0.130	-1.45	9.460	-0.121	-1.51

ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 901

Ethanol (% of volume)

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
Z16X4R		9.575	-0.085	-0.95	9.520	-0.061	-0.76
Z3RRY6		9.550	-0.110	-1.23	9.450	-0.131	-1.64
Z73E4Q		9.715	0.055	0.62	9.525	-0.056	-0.70
ZVPMQ9		9.615	-0.045	-0.50	9.550	-0.031	-0.39

Grand Means		Summary Statistics	
	9.6598 percent		9.5810 percent
Std Dev Btwn Labs			0.0801 percent
	0.0895 percent		
Statistics based on 63 of 74 reporting participants			

Wines tested: SA53: White Grenache; SA54: White Zinfandel

Comments on assigned Data Flags

2REKEW (X) - Inconsistent in testing between samples, data for Sample SA54 are low.

4N1USD (X) - Inconsistent in testing between samples.

6UB8FF (X) - Data for both samples are high.

9YJN22 (X) - Data for both samples are high. Also inconsistent in testing within Sample SA53.

BAZYZJ (X) - Data for all samples are high.

FGKKY5 (X) - Data for both samples are low. Possible systematic error.

FQ8QG5 (X) - Data for both samples are low. Also inconsistent in testing within both samples.

JND1TU (X) - Data for all samples are high.

KJSKS1 (X) - Data for both samples are low.

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

YFRJ8B (X) - Inconsistent in testing between samples.

ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 901

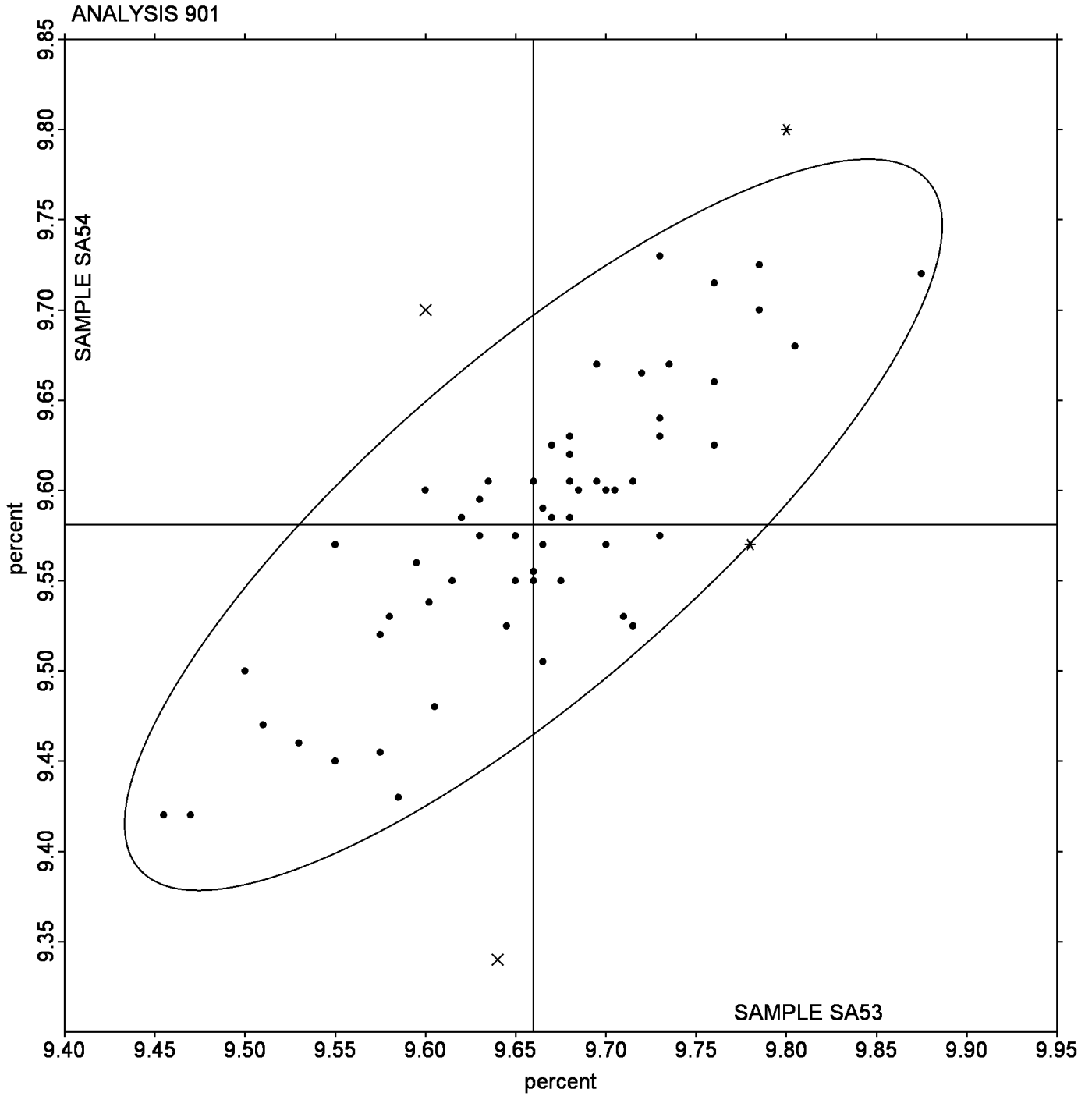
Ethanol (% of volume)

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA53 <i>White Grenache</i>			Sample SA54 <i>White Zinfandel</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Ebulliometer Method	9.635	0.078	-0.025	9.596	0.115	0.015	4	10
Gas Chromatography Method	9.747	0.135	0.087	9.638	0.137	0.057	3	4
Near Infrared Method	9.672	0.070	0.012	9.581	0.068	0.000	35	35
Dist. / Density Method	9.587	0.047	-0.072	9.550	0.053	-0.031	9	13
FTIR	9.654	0.098	-0.005	9.565	0.081	-0.016	8	11
Other _____	9.760	0.000	0.100	9.660	0.000	0.079	1	1

Analysis 901

Ethanol (% of volume)



ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 902

Total Sulfur Dioxide

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
1RWSR1		121.5	-1.7	-0.25	125.5	-5.7	-0.68
21VFYH	X	120.0	-3.2	-0.46	148.0	16.8	1.99
25BWNZ		117.5	-5.7	-0.82	129.5	-1.7	-0.20
277BC4		128.0	4.8	0.68	136.5	5.3	0.63
28XL7C		127.5	4.3	0.61	137.0	5.8	0.69
2HWP6A		135.0	11.8	1.68	143.0	11.8	1.40
2WVTZE		114.0	-9.2	-1.32	122.5	-8.7	-1.04
2X9RE5	X	29.0	-94.2	-13.46	115.0	-16.2	-1.93
3H4HTV		120.0	-3.2	-0.46	126.0	-5.2	-0.62
4FZ45U		126.5	3.3	0.47	133.0	1.8	0.21
5238K1		113.0	-10.2	-1.46	121.5	-9.7	-1.15
5UM6GQ		118.0	-5.2	-0.75	130.0	-1.2	-0.14
769BSE		120.5	-2.7	-0.39	129.0	-2.2	-0.26
7ACPR6	*	141.5	18.3	2.61	153.0	21.8	2.59
7F7WRF		117.5	-5.7	-0.82	125.0	-6.2	-0.74
7JTLAS		130.5	7.3	1.04	140.0	8.8	1.04
81W14C		120.0	-3.2	-0.46	127.0	-4.2	-0.50
877SSH		114.0	-9.2	-1.32	122.5	-8.7	-1.04
8H4LUZ		120.5	-2.7	-0.39	132.0	0.8	0.09
8HLU64	*	130.2	7.0	1.00	125.6	-5.7	-0.67
8MKVDH	*	130.0	6.8	0.97	149.0	17.8	2.11
9EZQVB		130.0	6.8	0.97	145.0	13.8	1.64
9PB3P7		122.0	-1.2	-0.18	132.0	0.8	0.09
9PZTT8		115.2	-8.0	-1.15	119.9	-11.3	-1.34
ACR96X	X	70.0	-53.2	-7.60	66.0	-65.2	-7.75
AG7JQG	X	92.5	-30.7	-4.39	109.0	-22.2	-2.64
BG34Q8		128.0	4.8	0.68	133.0	1.8	0.21
BQYBH7		122.5	-0.7	-0.10	130.5	-0.7	-0.09
C1BUVW		125.0	1.8	0.25	138.5	7.3	0.86
CA2FXD		129.5	6.3	0.90	136.0	4.8	0.57
ENM99C		127.0	3.8	0.54	135.0	3.8	0.45
EV6R3T		120.0	-3.2	-0.46	125.0	-6.2	-0.74
EY943K	X	89.4	-33.8	-4.84	109.6	-21.6	-2.57
F54A2U		117.0	-6.2	-0.89	127.5	-3.7	-0.44
FD7JCZ	X	161.5	38.3	5.47	136.5	5.3	0.63

ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 902

Total Sulfur Dioxide

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
FDM6AF		119.5	-3.7	-0.53	127.5	-3.7	-0.44
FSL2JF		127.5	4.3	0.61	129.0	-2.2	-0.26
FVNEH7		130.0	6.8	0.97	134.0	2.8	0.33
G3FBK1		125.0	1.8	0.25	131.5	0.3	0.03
G8WL5K		127.5	4.3	0.61	134.0	2.8	0.33
JD3PCX		136.5	13.3	1.90	150.5	19.3	2.29
K2RHCG		119.0	-4.2	-0.60	125.0	-6.2	-0.74
L4RSHY		128.5	5.3	0.75	140.0	8.8	1.04
L7YLKU		131.0	7.8	1.11	138.0	6.8	0.81
N1K9WT		120.0	-3.2	-0.46	127.0	-4.2	-0.50
N23S15		116.3	-6.9	-0.99	120.4	-10.8	-1.29
N7J2LN		115.5	-7.7	-1.10	130.5	-0.7	-0.09
NBJPKR		116.0	-7.2	-1.03	129.0	-2.2	-0.26
NN956Y		115.0	-8.2	-1.18	117.5	-13.7	-1.63
PEBUCE		129.0	5.8	0.82	134.0	2.8	0.33
PHVTHW		121.0	-2.2	-0.32	130.0	-1.2	-0.14
Q6ERVH		126.0	2.8	0.40	137.0	5.8	0.69
RPT2CF	*	105.5	-17.8	-2.54	107.2	-24.0	-2.85
TUF3FL		132.5	9.3	1.32	132.5	1.3	0.15
TXLYE8		120.0	-3.2	-0.46	131.5	0.3	0.03
U1RKEK		127.0	3.8	0.54	129.0	-2.2	-0.26
U3NZ23		114.0	-9.2	-1.32	116.0	-15.2	-1.81
UGEGCL		125.5	2.3	0.32	142.0	10.8	1.28
UMWLM3		122.0	-1.2	-0.18	129.5	-1.7	-0.20
URVDW8		123.5	0.3	0.04	122.5	-8.7	-1.04
US9BAW		123.8	0.6	0.08	135.0	3.8	0.45
UY6QJ5		127.0	3.8	0.54	138.0	6.8	0.81
VSS3YS		136.0	12.8	1.82	145.5	14.3	1.70
WP6DEE		120.0	-3.2	-0.46	126.0	-5.2	-0.62
X1MK4F		132.5	9.3	1.32	141.0	9.8	1.16
XVB66W		124.5	1.3	0.18	133.0	1.8	0.21
Y6SCHR		111.0	-12.2	-1.75	122.5	-8.7	-1.04
ZT3JWP		117.5	-5.7	-0.82	121.0	-10.2	-1.21
ZUHGBC		126.5	3.3	0.47	132.0	0.8	0.09
ZZU3KK		112.5	-10.7	-1.53	129.0	-2.2	-0.26

Analysis 902

Total Sulfur Dioxide

Grand Means		Summary Statistics	
	123.23 mg/L		131.22 mg/L
Std Dev Btwn Labs			8.42 mg/L
	7.00 mg/L		
Statistics based on 64 of 70 reporting participants			

Wines tested: SA53: White Grenache; SA54: White Zinfandel

Comments on assigned Data Flags

21VFYH (X) - Inconsistent in testing between samples.

2X9RE5 (X) - Inconsistent in testing between samples, data for Sample SA53 are low.

ACR96X (X) - Low data for both samples.

AG7JQG (X) - Inconsistent in testing between samples. Data for Sample SA53 are low. Also inconsistent in testing within Sample SA53.

EY943K (X) - Inconsistent in testing between samples. Data for Sample SA53 are low. Also inconsistent in testing within Sample SA53.

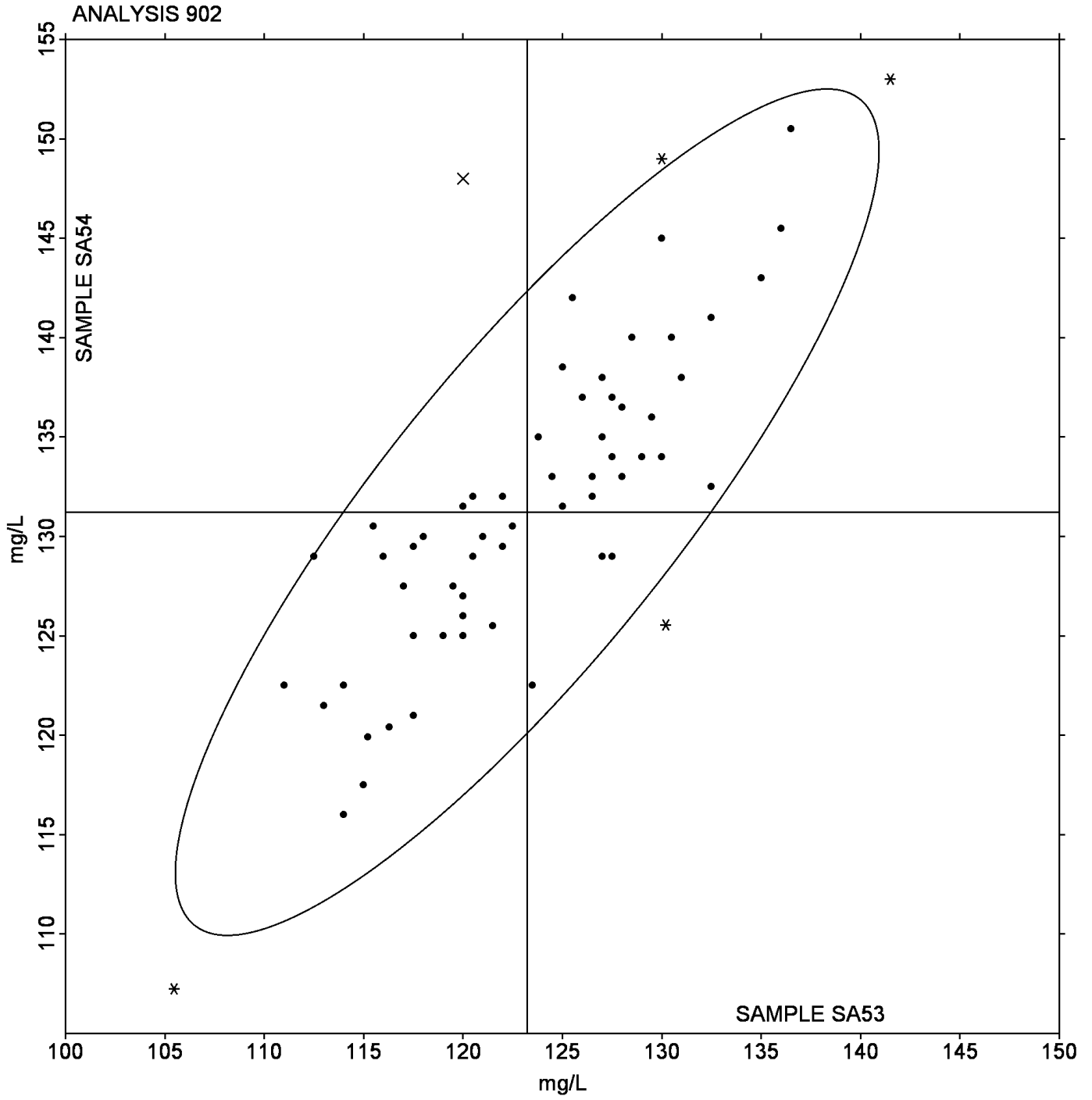
FD7JCZ (X) - Inconsistent in testing between samples, data for Sample SA53 are high.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA53 <i>White Grenache</i>			Sample SA54 <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	115.6	3.9	-7.6	121.1	3.8	-10.1	4	4
Ripper Method	121.5	5.8	-1.7	128.9	5.9	-2.3	23	25
Aeration Oxidation (AO) Method	122.6	5.7	-0.6	131.7	6.3	0.4	18	21
Segmented Flow Analyzer	127.2	4.1	3.9	136.5	7.6	5.3	3	5
Colormetric Analyzer	126.8	6.2	3.6	134.7	6.8	3.5	7	8
FTIR	130.5	0.0	7.3	140.0	0.0	8.8	1	1
Flow Injection Analysis	128.8	6.6	5.5	137.6	9.2	6.4	4	6

Analysis 902

Total Sulfur Dioxide



ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 903

Free Sulfur Dioxide

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2125DM		22.00	2.49	0.72	20.00	0.53	0.15
21YG29	X	21.50	1.99	0.57	14.50	-4.97	-1.44
24JBWP		18.00	-1.51	-0.44	17.50	-1.97	-0.57
2QBP8Z		19.00	-0.51	-0.15	20.50	1.03	0.30
2SWH3E		20.00	0.49	0.14	18.00	-1.47	-0.42
2XDN7U		24.00	4.49	1.30	24.00	4.53	1.31
4YFW5Y		25.00	5.49	1.59	23.00	3.53	1.02
51SAKR		11.50	-8.01	-2.32	12.50	-6.97	-2.02
5MF4VR		18.50	-1.01	-0.29	18.00	-1.47	-0.42
5SX9Z6		14.00	-5.51	-1.60	12.40	-7.07	-2.05
5X3XP1		15.00	-4.51	-1.31	15.00	-4.47	-1.29
6BN8W9		20.50	0.99	0.29	20.50	1.03	0.30
6SH5K7	X	23.50	3.99	1.15	15.50	-3.97	-1.15
6V3U5K		18.50	-1.01	-0.29	18.50	-0.97	-0.28
8193MZ		22.00	2.49	0.72	25.00	5.53	1.60
8SNJGC		19.00	-0.51	-0.15	19.00	-0.47	-0.14
9HQ9C7		18.00	-1.51	-0.44	19.50	0.03	0.01
9MM698	X	18.00	-1.51	-0.44	30.00	10.53	3.05
9P3QMX		18.00	-1.51	-0.44	16.00	-3.47	-1.00
BNCAFC		19.60	0.09	0.02	21.20	1.73	0.50
BUQAKN		20.00	0.49	0.14	20.50	1.03	0.30
CABK2B		22.00	2.49	0.72	21.00	1.53	0.44
CDWEWR		19.00	-0.51	-0.15	21.00	1.53	0.44
CJEH5Z		18.00	-1.51	-0.44	16.00	-3.47	-1.00
CKSGLX		19.20	-0.31	-0.09	20.80	1.33	0.39
D2H8MG		18.00	-1.51	-0.44	18.00	-1.47	-0.42
D8SPBQ		17.00	-2.51	-0.73	17.00	-2.47	-0.71
DC91EM		20.50	0.99	0.29	20.00	0.53	0.15
DZWJ34		28.00	8.49	2.46	26.00	6.53	1.89
EENBD9		15.00	-4.51	-1.31	17.00	-2.47	-0.71
EQA57J		22.00	2.49	0.72	22.50	3.03	0.88
F4VB4Q	X	24.00	4.49	1.30	34.00	14.53	4.21
F7F5Y5		22.50	2.99	0.86	23.00	3.53	1.02
FB3GJU		24.50	4.99	1.44	23.50	4.03	1.17
FDB7NB		21.00	1.49	0.43	18.50	-0.97	-0.28

ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 903

Free Sulfur Dioxide

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
FGW2HR	*	11.00	-8.51	-2.46	14.00	-5.47	-1.58
J5LFAU	X	29.00	9.49	2.75	32.50	13.03	3.77
JBSR11		20.50	0.99	0.29	21.00	1.53	0.44
JKURZV		16.00	-3.51	-1.02	14.50	-4.97	-1.44
K6EA3W		21.00	1.49	0.43	21.00	1.53	0.44
KJFB96		21.50	1.99	0.57	20.50	1.03	0.30
KLWUMX		19.20	-0.31	-0.09	19.84	0.37	0.11
L9NAZM		14.00	-5.51	-1.60	13.00	-6.47	-1.87
LFJDPT		20.00	0.49	0.14	20.00	0.53	0.15
LXTX2A		20.00	0.49	0.14	21.00	1.53	0.44
MNTYDH		20.00	0.49	0.14	18.00	-1.47	-0.42
N1ZWU8	*	25.50	5.99	1.73	28.00	8.53	2.47
N3KRQN		17.50	-2.01	-0.58	18.00	-1.47	-0.42
NBMQNH		21.00	1.49	0.43	18.00	-1.47	-0.42
NE7JHY		22.00	2.49	0.72	20.00	0.53	0.15
PDZX2H		19.50	-0.01	0.00	19.00	-0.47	-0.14
PTSRE4		23.11	3.59	1.04	22.69	3.22	0.93
Q934R7		18.50	-1.01	-0.29	18.00	-1.47	-0.42
QCNYLM	*	24.00	4.49	1.30	19.50	0.03	0.01
QR5G7G		14.83	-4.68	-1.36	16.87	-2.60	-0.75
R8R6AA		21.50	1.99	0.57	19.50	0.03	0.01
S1ES55		18.00	-1.51	-0.44	18.00	-1.47	-0.42
S2LWE2		13.70	-5.81	-1.68	14.90	-4.57	-1.32
S5A9AR		19.50	-0.01	0.00	21.00	1.53	0.44
T1CCDQ		17.50	-2.01	-0.58	17.50	-1.97	-0.57
UGPRQT		23.00	3.49	1.01	22.50	3.03	0.88
UT73HG		11.00	-8.51	-2.46	13.00	-6.47	-1.87
V5PYFL		17.00	-2.51	-0.73	17.50	-1.97	-0.57
WZBHHG		24.00	4.49	1.30	24.00	4.53	1.31
X96HDM		19.00	-0.51	-0.15	18.00	-1.47	-0.42
XS5GCE		24.50	4.99	1.44	21.50	2.03	0.59
XVR2GN		17.50	-2.01	-0.58	14.00	-5.47	-1.58
XY1J2L	X	24.00	4.49	1.30	29.50	10.03	2.90
Y4T2EH		19.50	-0.01	0.00	20.00	0.53	0.15
Y5DSQG		23.00	3.49	1.01	26.00	6.53	1.89

ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 903

Free Sulfur Dioxide

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
YPKMHZ		18.32	-1.19	-0.35	22.16	2.69	0.78
ZMXC9C	*	22.50	2.99	0.86	27.00	7.53	2.18

Grand Means		Summary Statistics	
	19.514 mg/L		19.468 mg/L
Stnd Dev Btwn Labs			3.456 mg/L
	3.455 mg/L		
Statistics based on 66 of 72 reporting participants			

Wines tested: SA53: White Grenache; SA54: White Zinfandel

Comments on assigned Data Flags

21YG29 (X) - Inconsistent in testing between samples.

6SH5K7 (X) - Inconsistent in testing between samples.

9MM698 (X) - Inconsistent in testing between samples, data for Sample SA54 are high. Also inconsistent in testing within Sample SA54.

F4VB4Q (X) - Inconsistent in testing between samples, data for Sample SA54 are high.

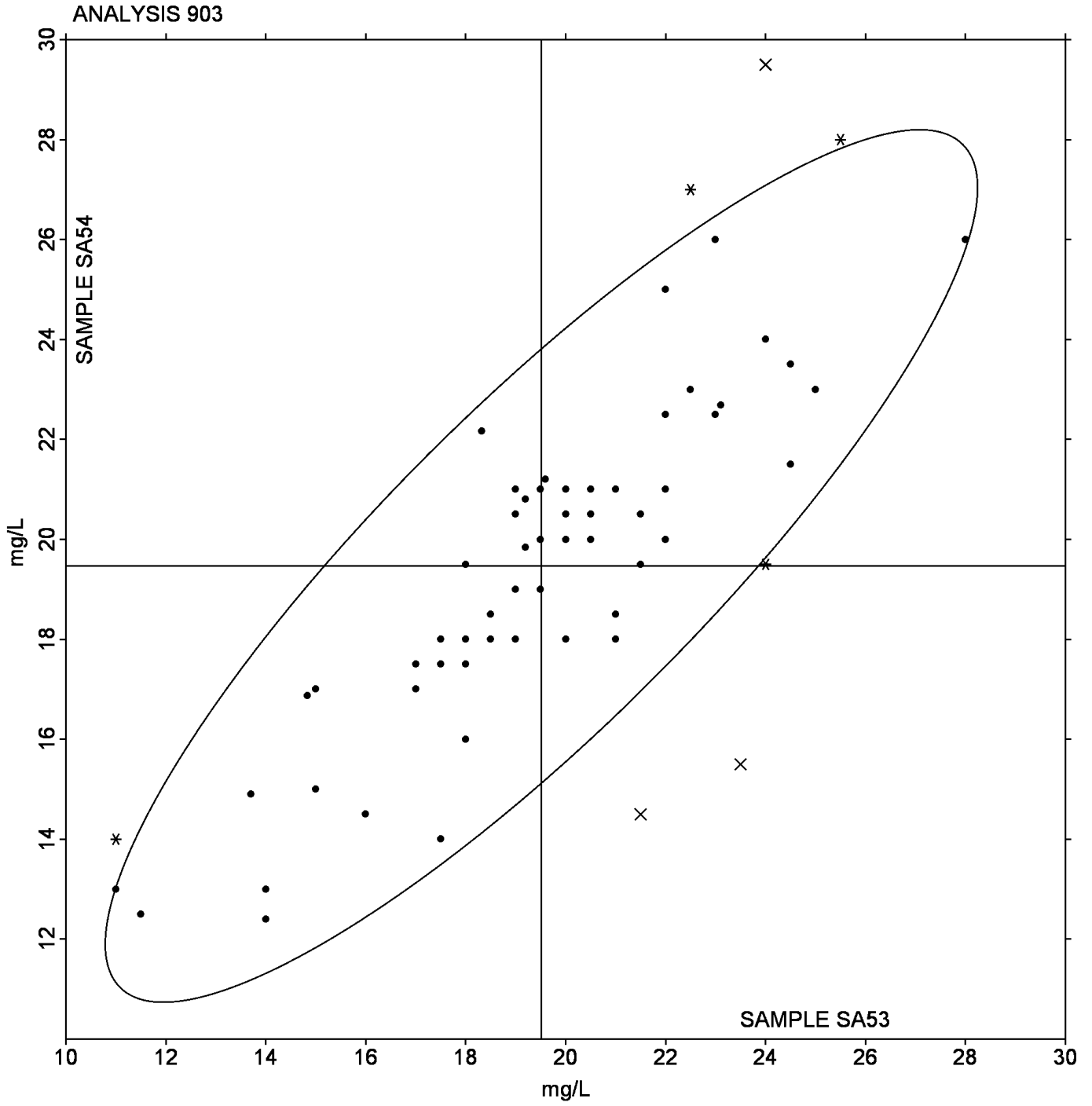
J5LFAU (X) - Data for both samples are high.

XY1J2L (X) - Inconsistent in testing between samples, data for Sample SA54 are high.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA53 <i>White Grenache</i>			Sample SA54 <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	21.42	3.79	1.91	20.34	3.43	0.87	5	5
Ripper Method	20.94	3.01	1.43	20.26	2.45	0.79	15	15
Aeration Oxidation (AO) Method	18.63	3.01	-0.89	18.94	3.05	-0.53	29	33
Segmented Flow Analyzer	17.88	3.07	-1.64	18.00	3.83	-1.47	4	4
Colormetric Analyzer	23.33	0.58	3.82	24.17	1.76	4.70	3	8
Flow Injection Analysis	17.00	1.30	-2.51	16.17	1.63	-3.30	6	7

Analysis 903
Free Sulfur Dioxide



ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 904

Titratable Acidity

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
12CKCP	*	6.750	0.787	2.30	8.250	1.093	2.92
1DQXFA		5.510	-0.453	-1.33	6.710	-0.447	-1.19
28CLT9	*	6.550	0.587	1.72	7.400	0.243	0.65
2WZ8QM		6.170	0.207	0.61	7.460	0.303	0.81
3DAM1N		5.980	0.017	0.05	7.290	0.133	0.36
3GDUQE	X	5.900	-0.063	-0.18	8.200	1.043	2.78
475YBT		5.800	-0.163	-0.48	7.000	-0.157	-0.42
4AQXGB		5.862	-0.101	-0.30	7.116	-0.041	-0.11
4M3AKX		5.795	-0.168	-0.49	7.130	-0.027	-0.07
4N4GGQ		5.790	-0.173	-0.51	6.955	-0.202	-0.54
4QNZ4A		5.610	-0.353	-1.03	6.910	-0.247	-0.66
4SANRW		5.950	-0.013	-0.04	7.120	-0.037	-0.10
5X7V13	X	7.100	1.137	3.33	5.900	-1.257	-3.35
65ARR2		5.790	-0.173	-0.51	6.990	-0.167	-0.45
6NXFNN		6.700	0.737	2.16	7.740	0.583	1.56
73EY8G		5.900	-0.063	-0.18	7.200	0.043	0.12
7FXC2X		6.200	0.237	0.69	7.400	0.243	0.65
9NP94Q		5.700	-0.263	-0.77	6.900	-0.257	-0.69
A1EYVE		6.200	0.237	0.69	7.300	0.143	0.38
A83V4H		5.600	-0.363	-1.06	6.850	-0.307	-0.82
ALFY3L		5.710	-0.253	-0.74	6.910	-0.247	-0.66
AMHNMA		6.020	0.057	0.17	6.945	-0.212	-0.57
AYNYKW		5.800	-0.163	-0.48	7.100	-0.057	-0.15
B3QJGG		5.850	-0.113	-0.33	6.975	-0.182	-0.49
B9ZQH5	*	6.900	0.937	2.74	8.325	1.168	3.12
BG4BY8		6.100	0.137	0.40	7.250	0.093	0.25
BTG1UB		5.550	-0.413	-1.21	6.650	-0.507	-1.35
BTGP2U		5.650	-0.313	-0.92	6.900	-0.257	-0.69
CAHC87		6.000	0.037	0.11	7.200	0.043	0.12
CDMCHX		6.130	0.167	0.49	7.365	0.208	0.56
D12FPL	*	5.500	-0.463	-1.35	6.350	-0.807	-2.15
D7WMPU		6.250	0.287	0.84	7.300	0.143	0.38
EMBRKU		6.050	0.087	0.25	7.050	-0.107	-0.29
EQWF47		5.600	-0.363	-1.06	6.800	-0.357	-0.95
F12NTX	X	7.000	1.037	3.03	9.000	1.843	4.92

ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 904

Titratable Acidity

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
FXPC71	X	5.940	-0.023	-0.07	7.800	0.643	1.72
G3M5VV		5.800	-0.163	-0.48	6.850	-0.307	-0.82
GZ2FBH		6.055	0.092	0.27	7.150	-0.007	-0.02
HBE2XP		5.610	-0.353	-1.03	6.925	-0.232	-0.62
HEGDXH		5.895	-0.068	-0.20	7.090	-0.067	-0.18
HH33GV		5.800	-0.163	-0.48	7.050	-0.107	-0.29
J2XG46		5.700	-0.263	-0.77	7.000	-0.157	-0.42
J8TCDB		5.965	0.002	0.01	7.165	0.008	0.02
LFLGJA	X	7.400	1.437	4.20	8.300	1.143	3.05
LP9XX7		5.880	-0.083	-0.24	7.085	-0.072	-0.19
MC1SZX		6.300	0.337	0.99	7.250	0.093	0.25
NLSQ2R		5.950	-0.013	-0.04	7.200	0.043	0.12
NSJWZR		6.000	0.037	0.11	7.200	0.043	0.12
P92JDT		6.250	0.287	0.84	7.500	0.343	0.92
P9S5WY		5.480	-0.483	-1.41	6.660	-0.497	-1.33
PPY34B	X	7.000	1.037	3.03	5.700	-1.457	-3.89
QWJL9N	*	6.400	0.437	1.28	7.250	0.093	0.25
R3DT8W		5.685	-0.278	-0.81	6.785	-0.372	-0.99
RHVBUQ		6.200	0.237	0.69	7.450	0.293	0.78
RTYWPA		5.750	-0.213	-0.62	7.050	-0.107	-0.29
S2QQF1		5.890	-0.073	-0.21	7.195	0.038	0.10
SB6LZN		5.650	-0.313	-0.92	6.650	-0.507	-1.35
SE9YZE	X	6.600	0.637	1.86	7.100	-0.057	-0.15
SEAM9D		6.750	0.787	2.30	8.090	0.933	2.49
SHJT7Q		5.760	-0.203	-0.59	6.935	-0.222	-0.59
TY51WN		5.765	-0.198	-0.58	7.050	-0.107	-0.29
UKF6GV		6.200	0.237	0.69	7.700	0.543	1.45
UN1V27		5.855	-0.108	-0.32	7.055	-0.102	-0.27
V7ELC3		5.450	-0.513	-1.50	6.600	-0.557	-1.49
WX6V8J		6.000	0.037	0.11	7.200	0.043	0.12
X5XTAC	*	6.500	0.537	1.57	7.300	0.143	0.38
X6QR6B	*	6.395	0.432	1.26	8.005	0.848	2.26
X9AGQP	*	6.730	0.767	2.24	7.650	0.493	1.32
XHRC9A		5.620	-0.343	-1.00	6.750	-0.407	-1.09
XKNY4D		5.800	-0.163	-0.48	7.100	-0.057	-0.15

ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 904

Titratable Acidity

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
Y3LRWL		5.740	-0.223	-0.65	6.890	-0.267	-0.71
YKRZ77		6.350	0.387	1.13	7.850	0.693	1.85
YULMAV		5.975	0.012	0.03	7.180	0.023	0.06
Z3CAU5		5.625	-0.338	-0.99	6.865	-0.292	-0.78
ZR1XRJ		5.750	-0.213	-0.62	7.100	-0.057	-0.15

Grand Means		Summary Statistics	
	5.9631 g/L as tartaric acid		7.1569 g/L as tartaric acid
Std Dev Btwn Labs			0.3748 g/L as tartaric acid
	0.3418 g/L as tartaric acid		
Statistics based on 68 of 75 reporting participants			

Wines tested: SA53: White Grenache; SA54: White Zinfandel

Comments on assigned Data Flags

3GDUQE (X) - Inconsistent in testing between samples, data for Sample SA54 are high.

5X7V13 (X) - Inconsistent in testing between samples. Lab may have transposed data between sample sets.

F12NTX (X) - High data for both samples.

FXPC71 (X) - Inconsistent in testing between samples.

LFLGJA (X) - High data for both samples.

PPY34B (X) - Inconsistent in testing between samples. Lab may have transposed data between sample sets.

SE9YZE (X) - Inconsistent in testing between samples.

ASEV-CTS Wine Industry Interlaboratory Testing Program

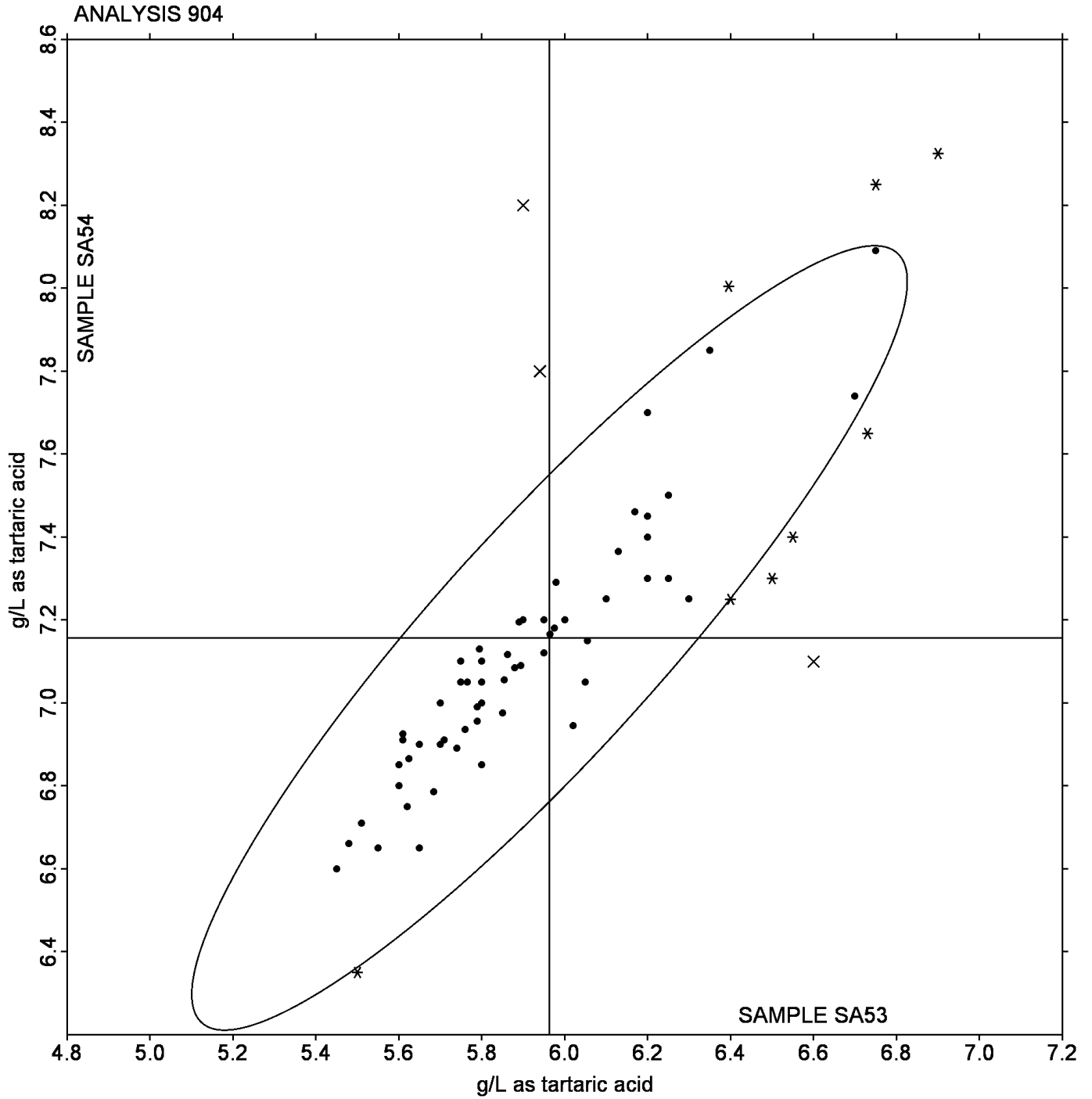
Analysis 904

Titratable Acidity

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA53 <i>White Grenache</i>			Sample SA54 <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	5.740	0.000	-0.223	6.890	0.000	-0.267	1	1
Autotitration	5.897	0.252	-0.066	7.140	0.304	-0.017	36	42
Manual Titration	5.922	0.332	-0.041	7.058	0.292	-0.099	18	26
FTIR	5.829	0.159	-0.134	7.034	0.178	-0.123	5	6

Analysis 904
Titratable Acidity



ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 905

Volatile Acidity

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
11QLD4		0.1850	-0.0181	-0.19	0.2850	-0.0100	-0.10
14AE8J		0.1750	-0.0281	-0.29	0.2800	-0.0150	-0.15
1CCAWB		0.1050	-0.0981	-1.02	0.1700	-0.1250	-1.25
232W79		0.1200	-0.0831	-0.86	0.1950	-0.1000	-1.00
2GJET3		0.1070	-0.0961	-1.00	0.1610	-0.1340	-1.34
4JWT8V	*	0.2850	0.0819	0.85	0.2700	-0.0250	-0.25
4YUWQT		0.0550	-0.1481	-1.54	0.1650	-0.1300	-1.30
4YV6RK		0.2100	0.0069	0.07	0.2750	-0.0200	-0.20
56W1YQ		0.3100	0.1069	1.11	0.3800	0.0850	0.85
59GUU5		0.2100	0.0069	0.07	0.3300	0.0350	0.35
5UN7WC		0.1800	-0.0231	-0.24	0.3000	0.0050	0.05
5WMHZL		0.0700	-0.1331	-1.38	0.1650	-0.1300	-1.30
68A8CP		0.2300	0.0269	0.28	0.3200	0.0250	0.25
6DPUFU		0.0600	-0.1431	-1.49	0.1500	-0.1450	-1.45
89VYZD		0.2550	0.0519	0.54	0.3450	0.0500	0.50
8SENS7		0.3654	0.1623	1.69	0.4698	0.1748	1.75
9DHNXA		0.2650	0.0619	0.64	0.3700	0.0750	0.75
9GTFDX	X	0.2000	-0.0031	-0.03	0.9000	0.6050	6.07
9HFM7L		0.2150	0.0119	0.12	0.3000	0.0050	0.05
ANDGN8		0.0500	-0.1531	-1.59	0.1500	-0.1450	-1.45
AXGHGZ		0.2550	0.0519	0.54	0.3450	0.0500	0.50
AZ2BBE		0.1600	-0.0431	-0.45	0.2700	-0.0250	-0.25
B4JRYD		0.2650	0.0619	0.64	0.3300	0.0350	0.35
BXL3DT		0.0750	-0.1281	-1.33	0.1800	-0.1150	-1.15
BZA2KG		0.3800	0.1769	1.84	0.4700	0.1750	1.75
CJ7WHL		0.1150	-0.0881	-0.92	0.2250	-0.0700	-0.70
DB31RD		0.1250	-0.0781	-0.81	0.2150	-0.0800	-0.80
DLJXAZ		0.0700	-0.1331	-1.38	0.2150	-0.0800	-0.80
DUMTTN		0.1450	-0.0581	-0.60	0.3200	0.0250	0.25
DX7MN4		0.2000	-0.0031	-0.03	0.3550	0.0600	0.60
E2PX2L		0.2550	0.0519	0.54	0.3600	0.0650	0.65
EDCMER		0.3700	0.1669	1.73	0.4300	0.1350	1.35
G3E38Q		0.0700	-0.1331	-1.38	0.1700	-0.1250	-1.25
GR686C		0.2950	0.0919	0.96	0.3100	0.0150	0.15
H226HW		0.2400	0.0369	0.38	0.3750	0.0800	0.80

ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 905

Volatile Acidity

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
H8X973		0.2400	0.0369	0.38	0.2850	-0.0100	-0.10
HBH32H		0.4150	0.2119	2.20	0.5150	0.2200	2.21
HRRDQH		0.1600	-0.0431	-0.45	0.2500	-0.0450	-0.45
JV8SCG		0.2350	0.0319	0.33	0.3400	0.0450	0.45
JWPQJS		0.2050	0.0019	0.02	0.3350	0.0400	0.40
JYKFH1		0.1150	-0.0881	-0.92	0.1950	-0.1000	-1.00
LTDZGP		0.3000	0.0969	1.01	0.3600	0.0650	0.65
M3A2Q5		0.2050	0.0019	0.02	0.3150	0.0200	0.20
MPTJFV	X	0.3650	0.1619	1.68	0.2965	0.0015	0.02
MY7M5N		0.3825	0.1794	1.86	0.5175	0.2225	2.23
NCQ82Z		0.2100	0.0069	0.07	0.2900	-0.0050	-0.05
NJF3GR		0.1400	-0.0631	-0.66	0.2100	-0.0850	-0.85
NL2EQQ	X	0.4250	0.2219	2.31	0.3850	0.0900	0.90
NTU66J	X	0.2900	0.0869	0.90	0.2200	-0.0750	-0.75
NVSG9R		0.1000	-0.1031	-1.07	0.1700	-0.1250	-1.25
PLT9UR		0.2150	0.0119	0.12	0.3150	0.0200	0.20
QEP32N		0.0600	-0.1431	-1.49	0.1600	-0.1350	-1.35
RKV692		0.1650	-0.0381	-0.40	0.2500	-0.0450	-0.45
RNDSYV		0.2050	0.0019	0.02	0.3050	0.0100	0.10
RQYLTA		0.2300	0.0269	0.28	0.3100	0.0150	0.15
SAVPPR	*	0.3400	0.1369	1.42	0.5100	0.2150	2.16
TCT63Q		0.2725	0.0694	0.72	0.3125	0.0175	0.18
TR1PFC		0.2350	0.0319	0.33	0.3350	0.0400	0.40
U2GZDU		0.1550	-0.0481	-0.50	0.2950	0.0000	0.00
UKJ7LM		0.3320	0.1289	1.34	0.4820	0.1870	1.87
V4EAG3		0.2950	0.0919	0.96	0.3700	0.0750	0.75
VA54WU		0.3550	0.1519	1.58	0.4600	0.1650	1.65
VUZDXG		0.0700	-0.1331	-1.38	0.1750	-0.1200	-1.20
W9XHED	*	0.2400	0.0369	0.38	0.2250	-0.0700	-0.70
WCHB9U		0.1430	-0.0601	-0.62	0.1900	-0.1050	-1.05
XJMQ6		0.0650	-0.1381	-1.44	0.1400	-0.1550	-1.55
YS4UK8		0.0900	-0.1131	-1.18	0.1850	-0.1100	-1.10
Z8VV9C		0.3200	0.1169	1.22	0.3750	0.0800	0.80
ZHQRVF		0.2350	0.0319	0.33	0.3450	0.0500	0.50

ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 905
Volatile Acidity

	Summary Statistics	
Grand Means	0.20311 g/L as acetic acid	0.29497 g/L as acetic acid
Std Dev Btwn Labs	0.09620 g/L as acetic acid	0.09975 g/L as acetic acid
Statistics based on 65 of 69 reporting participants		

Wines tested: SA53: White Grenache; SA54: White Zinfandel

Comments on assigned Data Flags

9GTFDX (X) - Inconsistent in testing between samples, data for Sample SA54 are high.

MPTJFV (X) - Inconsistent in testing between samples.

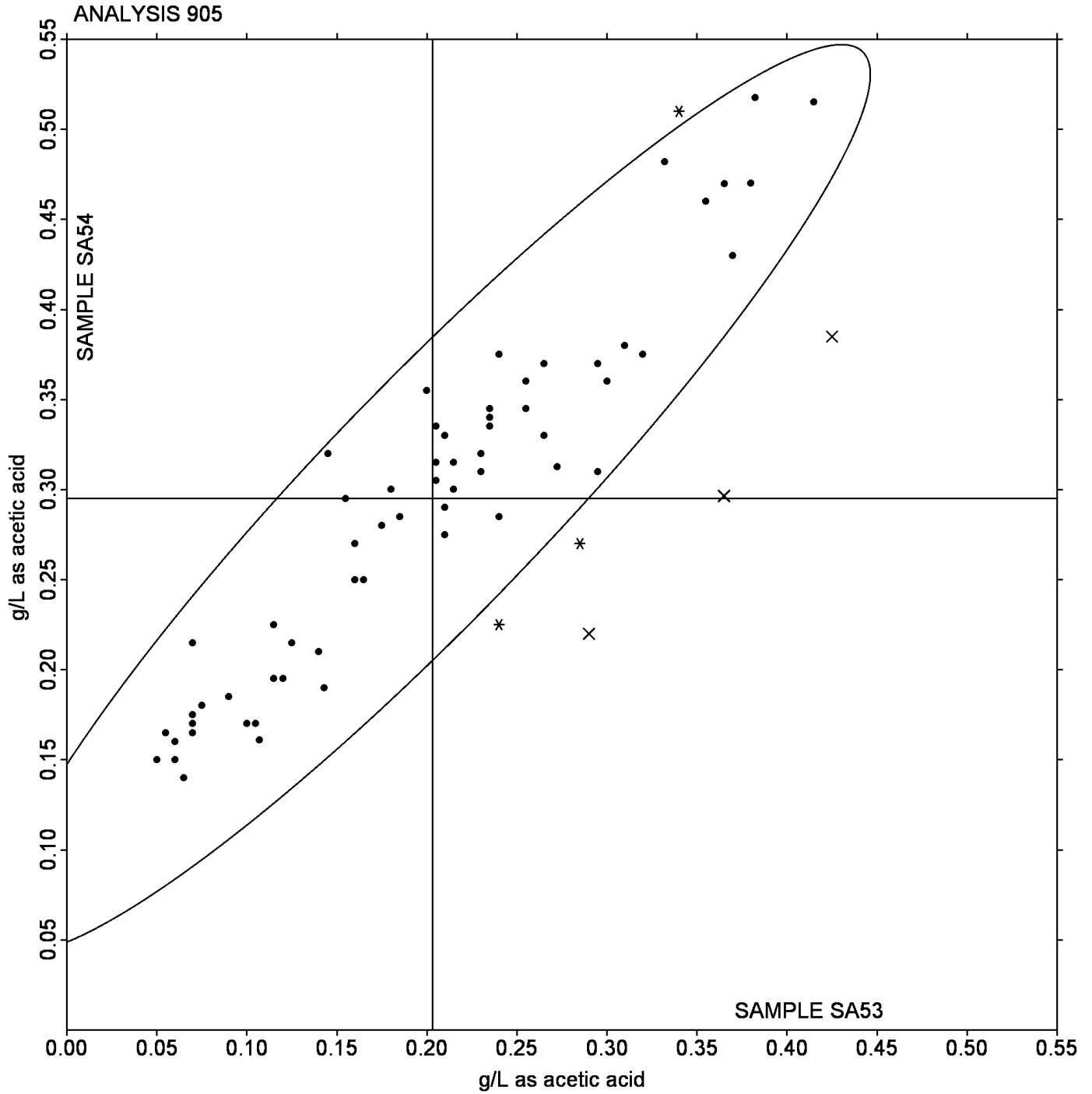
NL2EQQ (X) - Inconsistent in testing between samples.

NTU66J (X) - Inconsistent in testing between samples.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA53 <i>White Grenache</i>			Sample SA54 <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	0.1400	0.0990	-0.0631	0.2225	0.0742	-0.0725	2	3
Cash Still method	0.2630	0.0743	0.0599	0.3533	0.0817	0.0584	32	36
Enzymatic method	0.0727	0.0217	-0.1304	0.1714	0.0245	-0.1236	11	11
HPLC	0.1070	0.0000	-0.0961	0.1610	0.0000	-0.1340	1	1
GC	0.1550	0.0707	-0.0481	0.2425	0.1025	-0.0525	2	2
Seg. Flow / Colorimetric Analyzer	0.1657	0.0318	-0.0374	0.2957	0.0406	0.0007	7	8
FTIR	0.1807	0.0727	-0.0224	0.2593	0.0663	-0.0357	7	8

Analysis 905
Volatile Acidity



ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 906

Specific Gravity

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
11DMJU		1.005	-0.001	-1.49	1.006	-0.001	-0.94
1EC1RY	X	1.010	0.004	4.06	1.009	0.002	2.14
1XTXYH		1.007	0.000	0.45	1.007	0.000	0.11
46L24F	X	1.011	0.004	4.59	1.013	0.006	5.70
4BHFCQ		1.007	0.001	0.89	1.007	0.000	0.41
4PVYJ6		1.006	0.000	-0.37	1.007	0.000	0.18
4RNU6E	X	1.012	0.005	5.65	1.011	0.005	4.40
5W8TW8		1.006	0.000	0.26	1.007	0.001	0.50
5Z7QGE		1.007	0.001	0.63	1.007	0.000	0.27
7ACLCN		1.006	0.000	-0.01	1.007	0.000	0.10
7DYAX1		1.007	0.001	0.58	1.007	0.000	0.05
7UKUEF		1.004	-0.002	-2.18	1.005	-0.002	-1.71
7Z13ZY		1.008	0.002	1.74	1.009	0.002	2.14
89CUW7		1.006	0.000	-0.06	1.007	0.000	-0.08
8NU8WE		1.006	0.000	0.20	1.007	0.000	0.27
A48HKK		1.005	-0.001	-1.30	1.005	-0.002	-1.53
BEK9GT	*	1.006	0.000	-0.38	1.007	0.001	0.79
C9ELSY		1.005	-0.001	-1.44	1.005	-0.002	-1.71
D9WHRW		1.006	0.000	-0.31	1.007	0.000	0.22
DNUUY1		1.005	-0.002	-1.59	1.005	-0.002	-1.86
DQQ5D2		1.006	0.000	-0.38	1.006	0.000	-0.27
E8ZACB		1.006	0.000	-0.07	1.007	0.000	0.05
EFWJ6G		1.007	0.001	1.21	1.008	0.001	1.27
EKCTQZ		1.006	0.000	0.04	1.007	0.000	0.10
EPCFQ3		1.007	0.000	0.47	1.007	0.000	0.31
GNT7K7	X	1.004	-0.002	-1.84	1.007	0.001	0.61
GVXKZN		1.007	0.001	0.89	1.007	0.000	0.41
J3MSHS		1.005	-0.001	-1.26	1.005	-0.001	-1.41
JGZVRM		1.007	0.001	0.89	1.008	0.001	1.37
JQK8BM		1.007	0.001	0.57	1.007	0.001	0.69
JZ23XE		1.006	0.000	-0.11	1.006	0.000	-0.46
KAEQKK		1.007	0.001	1.10	1.007	0.001	0.60
KQ2ZZH		1.008	0.001	1.58	1.009	0.002	2.09
KWX7YR	X	1.003	-0.003	-2.92	1.007	0.000	0.17
LZPCRE		1.005	-0.001	-1.54	1.005	-0.002	-1.81

ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 906

Specific Gravity

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
MW4N72		1.007	0.001	0.53	1.007	0.001	0.61
NVZRW4		1.006	0.000	0.15	1.008	0.001	1.18
NX73D6		1.006	0.000	0.00	1.007	0.000	0.10
P1XZ3X		1.006	0.000	-0.06	1.007	0.000	0.14
P5WSC1		1.007	0.000	0.46	1.007	0.000	0.15
Q2B3SN		1.006	0.000	0.31	1.007	0.001	0.50
R9261P		1.007	0.001	0.56	1.007	0.000	0.18
RFZE4Q		1.006	0.000	-0.02	1.007	0.001	0.57
RVKNEV		1.006	0.000	-0.17	1.007	0.000	-0.08
S3BLGP		1.008	0.002	1.79	1.008	0.001	1.23
S6WA21		1.005	-0.001	-1.22	1.005	-0.002	-1.52
SADQRJ		1.004	-0.002	-2.28	1.005	-0.002	-2.00
SD915K	*	1.004	-0.003	-2.65	1.004	-0.003	-2.87
SNYH9T		1.007	0.001	1.31	1.007	0.000	0.42
SWFDHE		1.007	0.001	0.64	1.007	0.000	0.00
TAPBL7		1.006	0.000	0.04	1.007	0.000	0.02
UC5UQG		1.006	0.000	-0.01	1.007	0.000	0.23
UL13HF	X	1.006	0.000	0.09	1.020	0.013	12.76
XCTTAC		1.006	0.000	0.04	1.007	0.000	0.21
XL9QUY		1.006	0.000	0.31	1.007	0.000	0.26
XR8H42		1.007	0.001	0.78	1.007	0.000	0.02
Y99AC8		1.007	0.001	0.68	1.007	0.001	0.50
YN6FWH	X	1.002	-0.004	-4.50	1.003	-0.004	-3.78
ZGFUDH		1.007	0.001	0.57	1.007	0.000	0.12
ZU1MWS		1.005	-0.001	-0.75	1.006	0.000	-0.12

Grand Means

1.0062 sp gr 20/20 C

Summary Statistics

1.0066 sp gr 20/20 C

Stnd Dev Btwn Labs

0.0009 sp gr 20/20 C

0.0010 sp gr 20/20 C

Statistics based on 53 of 60 reporting participants

Wines tested: SA53: White Grenache; SA54: White Zinfandel

Analysis 906

Specific Gravity

Comments on assigned Data Flags

1EC1RY (X) - Inconsistent in testing between samples, data for Sample SA53 are high.

46L24F (X) - High data for both samples. Also inconsistent in testing within both sample sets.

4RNU6E (X) - High data for both samples.

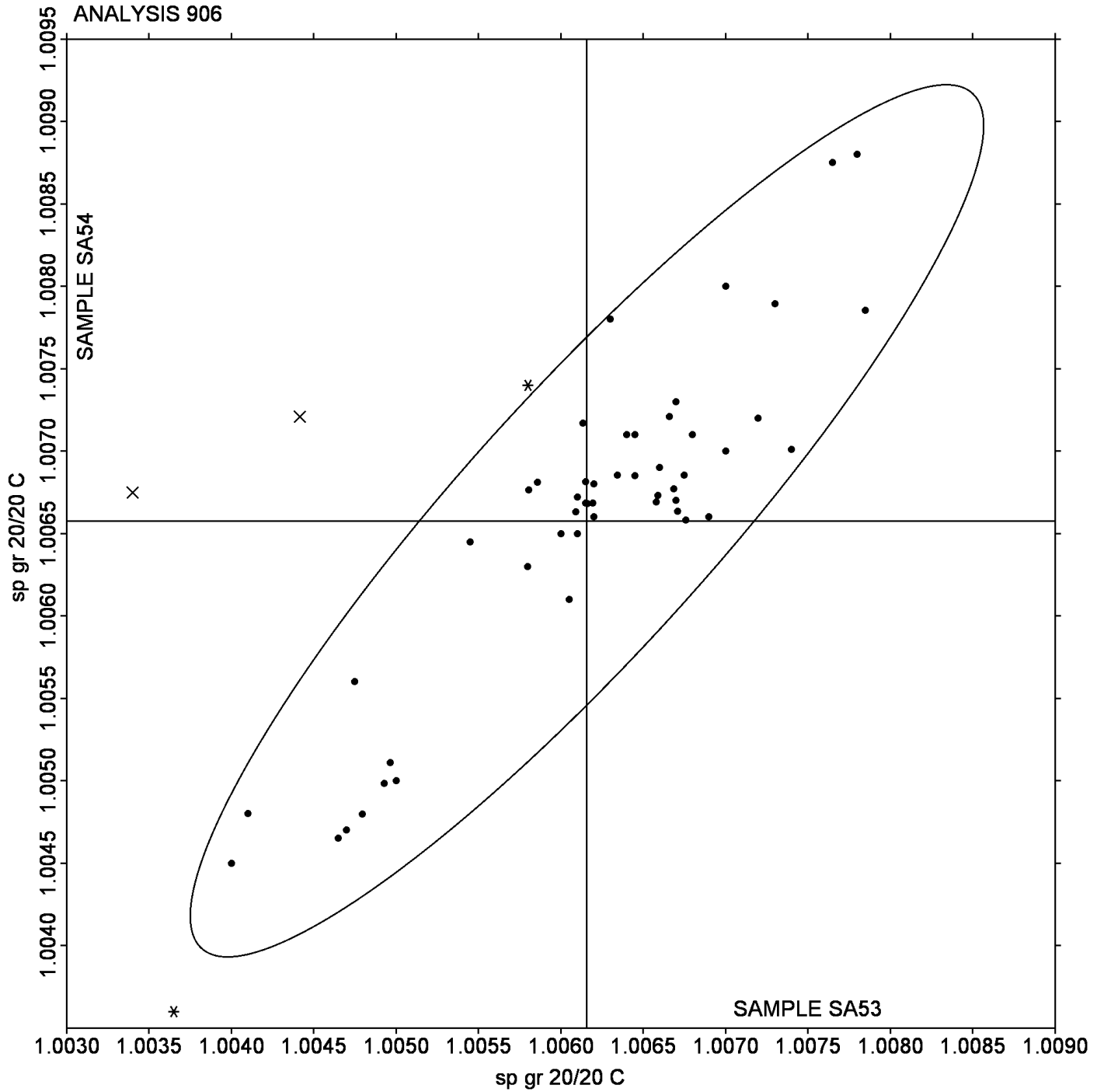
GNT7K7 (X) - Inconsistent in testing between samples.

KWX7YR (X) - Inconsistent in testing between samples, data for Sample SA53 are low.

UL13HF (X) - Inconsistent in testing between samples, data for Sample SA54 are high.

YN6FWH (X) - Low data for both samples. Possible Systematic Error.

Analysis 906
Specific Gravity



ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 907

pH

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2AW4QE	X	3.005	-0.147	-4.09	3.270	0.006	0.17
2EWL8L	*	3.060	-0.092	-2.56	3.210	-0.054	-1.65
2TXBX7	X	3.295	0.143	3.98	3.410	0.146	4.41
32G6BM		3.170	0.018	0.50	3.285	0.021	0.62
37YBF2		3.190	0.038	1.06	3.310	0.046	1.38
39J5AG		3.130	-0.022	-0.61	3.240	-0.024	-0.74
3YWBG7		3.165	0.013	0.37	3.280	0.016	0.47
45YC6N		3.150	-0.002	-0.05	3.270	0.006	0.17
48J2QZ		3.160	0.008	0.23	3.270	0.006	0.17
5FAZST	X	3.255	0.103	2.87	3.140	-0.124	-3.77
5TNG4B		3.170	0.018	0.50	3.280	0.016	0.47
67PLX8		3.165	0.013	0.37	3.280	0.016	0.47
6CQA8F		3.140	-0.012	-0.33	3.240	-0.024	-0.74
6V2S4Y		3.145	-0.007	-0.19	3.270	0.006	0.17
6ZJYWS		3.120	-0.032	-0.89	3.240	-0.024	-0.74
744R2T		3.115	-0.037	-1.03	3.235	-0.029	-0.89
76S98L		3.200	0.048	1.34	3.320	0.056	1.68
92L65H		3.100	-0.052	-1.44	3.195	-0.069	-2.10
956ZZX		3.140	-0.012	-0.33	3.250	-0.014	-0.44
9S59LW	X	3.060	-0.092	-2.56	3.240	-0.024	-0.74
9VQ3FB		3.160	0.008	0.23	3.255	-0.009	-0.29
A187PK		3.110	-0.042	-1.17	3.220	-0.044	-1.35
B74TR4		3.130	-0.022	-0.61	3.240	-0.024	-0.74
CUNCU5	*	3.260	0.108	3.01	3.350	0.086	2.59
DJWCKL		3.180	0.028	0.78	3.290	0.026	0.77
DQSF9S		3.195	0.043	1.20	3.300	0.036	1.08
DTC947	*	3.170	0.018	0.50	3.245	-0.019	-0.59
DVTTGW	X	3.235	0.083	2.31	3.380	0.116	3.50
EGBJQ6		3.175	0.023	0.64	3.290	0.026	0.77
EPFD76		3.180	0.028	0.78	3.280	0.016	0.47
G3K6BG		3.155	0.003	0.09	3.295	0.031	0.92
GG2PWA		3.155	0.003	0.09	3.260	-0.004	-0.14
GJMHRQ	X	3.310	0.158	4.40	3.210	-0.054	-1.65
GN8ZMG		3.135	-0.017	-0.47	3.250	-0.014	-0.44
GRTTGW		3.142	-0.010	-0.27	3.249	-0.015	-0.47

ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 907

pH

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
GZVSFR		3.130	-0.022	-0.61	3.235	-0.029	-0.89
H1XW3T	X	3.315	0.163	4.54	3.355	0.091	2.74
JXC28D	*	3.205	0.053	1.48	3.280	0.016	0.47
KHTLET		3.100	-0.052	-1.44	3.220	-0.044	-1.35
KLDE98		3.170	0.018	0.50	3.295	0.031	0.92
LALEYP	X	3.150	-0.002	-0.05	3.315	0.051	1.53
LCF4FP		3.150	-0.002	-0.05	3.260	-0.004	-0.14
LTJ7SX	X	3.000	-0.152	-4.23	3.100	-0.164	-4.98
LVTLL3	*	3.120	-0.032	-0.89	3.270	0.006	0.17
NC89WP		3.125	-0.027	-0.75	3.255	-0.009	-0.29
NLJCCN		3.155	0.003	0.09	3.265	0.001	0.02
NP4673		3.080	-0.072	-2.00	3.195	-0.069	-2.10
NRKUUU		3.180	0.028	0.78	3.300	0.036	1.08
P9KK3F	X	3.280	0.128	3.57	3.350	0.086	2.59
PC5DXV		3.130	-0.022	-0.61	3.240	-0.024	-0.74
PGDXL3	*	3.045	-0.107	-2.97	3.185	-0.079	-2.41
PL7DWQ		3.120	-0.032	-0.89	3.240	-0.024	-0.74
PTZEUA	X	3.000	-0.152	-4.23	3.130	-0.134	-4.07
Q7UX8M	X	3.120	-0.032	-0.89	3.190	-0.074	-2.25
QKZ6YH		3.220	0.068	1.90	3.340	0.076	2.29
QMLK9Q		3.145	-0.007	-0.19	3.250	-0.014	-0.44
RCTKZ6		3.135	-0.017	-0.47	3.220	-0.044	-1.35
REDEUL		3.185	0.033	0.92	3.300	0.036	1.08
RM9GJS		3.130	-0.022	-0.61	3.245	-0.019	-0.59
SHCTJH		3.170	0.018	0.50	3.280	0.016	0.47
SX6EVB		3.189	0.037	1.03	3.298	0.034	1.01
T6QZQ7		3.165	0.013	0.37	3.280	0.016	0.47
UA6JN9		3.170	0.018	0.50	3.295	0.031	0.92
UG5722		3.175	0.023	0.64	3.290	0.026	0.77
UKZ6WY		3.160	0.008	0.23	3.270	0.006	0.17
V6DB2K		3.115	-0.037	-1.03	3.240	-0.024	-0.74
VPB4US		3.170	0.018	0.50	3.280	0.016	0.47
WNPQDN		3.170	0.018	0.50	3.295	0.031	0.92
X8BZ91		3.145	-0.007	-0.19	3.240	-0.024	-0.74
Y6BWQJ		3.185	0.033	0.92	3.285	0.021	0.62

ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 907

pH

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
Y75CSK		3.140	-0.012	-0.33	3.245	-0.019	-0.59
YE7CRE		3.130	-0.022	-0.61	3.240	-0.024	-0.74
YHS6LU		3.160	0.008	0.23	3.285	0.021	0.62
ZZX6CF		3.180	0.028	0.78	3.280	0.016	0.47

Grand Means		Summary Statistics	
	3.1519 pH		3.2645 pH
Stnd Dev Btwn Labs			0.0330 pH
	0.0359 pH		
Statistics based on 62 of 74 reporting participants			

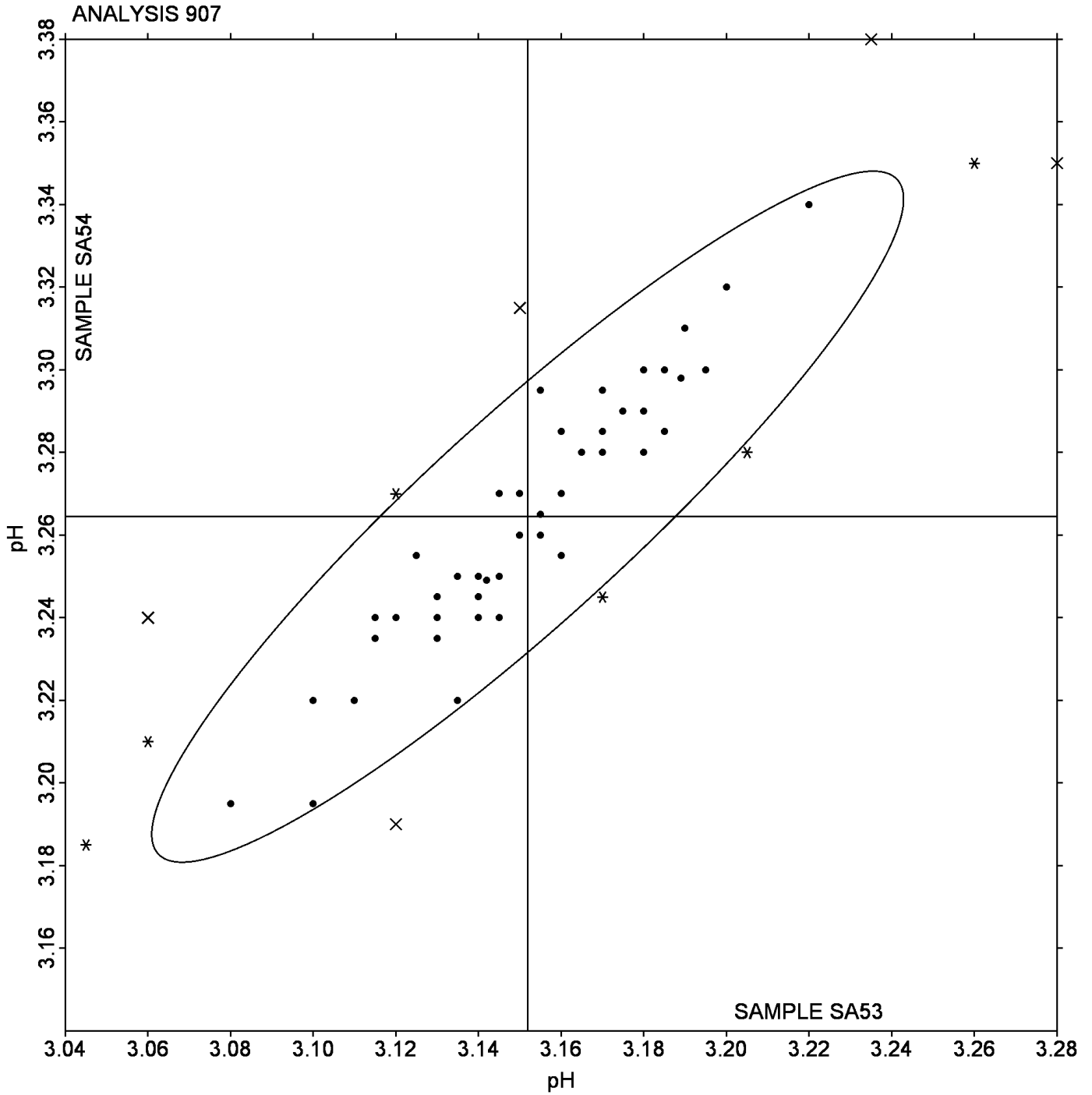
Wines tested: SA53: White Grenache; SA54: White Zinfandel

Comments on assigned Data Flags

- 2AW4QE (X) - Inconsistent in testing between samples, data for Sample SA53 are low.
- 2TXBX7 (X) - High data for both samples. Possible Systematic Error.
- 5FAZST (X) - Inconsistent in testing between samples. Lab may have transposed data between sample sets.
- 9S59LW (X) - Inconsistent in testing between samples.
- DVTTGW (X) - Inconsistent in testing between samples, data for Sample SA54 are high.
- GJMHRQ (X) - Inconsistent in testing between samples, data for Sample SA53 are high.
- H1XW3T (X) - High data for both samples.
- LALEYP (X) - Inconsistent in testing between samples.
- LTJ7SX (X) - Data for both samples are low.
- P9KK3F (X) - Inconsistent in testing between samples, data for Sample SA53 are high.
- PTZEU (X) - Low data for both samples. Possible Systematic Error.
- Q7UX8M (X) - Inconsistent in testing between samples.

Analysis 907

pH



ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 908

Residual Sugar

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
1PYS6F		30.50	0.71	0.21	28.00	0.45	0.14
2LWM9U		32.30	2.51	0.75	29.70	2.15	0.66
3HBXQH		31.70	1.90	0.57	29.57	2.01	0.62
4XRWBE	X	63.50	33.71	10.15	51.00	23.45	7.20
5GRZBH		29.25	-0.54	-0.16	29.75	2.20	0.68
7Z5HQ6		31.27	1.48	0.44	28.39	0.84	0.26
8AAQEW	X	38.00	8.21	2.47	28.00	0.45	0.14
8KJ3QY		30.50	0.71	0.21	26.95	-0.60	-0.18
9VWUM7		24.50	-5.29	-1.59	21.13	-6.43	-1.97
ASA53U	*	21.50	-8.29	-2.50	18.00	-9.55	-2.93
AXSFG9		30.30	0.51	0.15	29.00	1.45	0.44
BA1VL1		25.60	-4.19	-1.26	23.75	-3.80	-1.17
FUJB3B		31.65	1.86	0.56	30.75	3.20	0.98
GC5ZHP		30.25	0.46	0.14	27.60	0.05	0.02
GWEWXD		31.81	2.02	0.61	29.80	2.25	0.69
H7SNUM	X	28.70	-1.09	-0.33	33.30	5.75	1.77
JXEADX		30.10	0.31	0.09	27.10	-0.45	-0.14
KQG1KD		32.63	2.84	0.85	29.45	1.89	0.58
KVBF86		28.50	-1.29	-0.39	28.25	0.70	0.21
L6SRPW		31.10	1.31	0.39	30.00	2.45	0.75
LUF2TT		29.63	-0.17	-0.05	27.05	-0.51	-0.16
MRX3BH		32.06	2.27	0.68	28.37	0.82	0.25
PSPC8B		32.75	2.96	0.89	29.95	2.40	0.74
Q38221		30.10	0.31	0.09	27.45	-0.10	-0.03
TSJPLM		32.00	2.21	0.66	30.00	2.45	0.75
UFSRJU		32.25	2.46	0.74	29.80	2.25	0.69
VC9T2J		32.60	2.81	0.85	28.10	0.55	0.17
VV7LVR		29.75	-0.04	-0.01	28.43	0.87	0.27
WE2YG2	*	20.00	-9.79	-2.95	20.00	-7.55	-2.32

Analysis 908
Residual Sugar

	Summary Statistics	
Grand Means	29.792 g/L	27.551 g/L
Stnd Dev Btwn Labs	3.322 g/L	3.257 g/L
Statistics based on 26 of 29 reporting participants		

Wines tested: SA53: White Grenache; SA54: White Zinfandel

Comments on assigned Data Flags

4XRWBE (X) - High data for both samples.

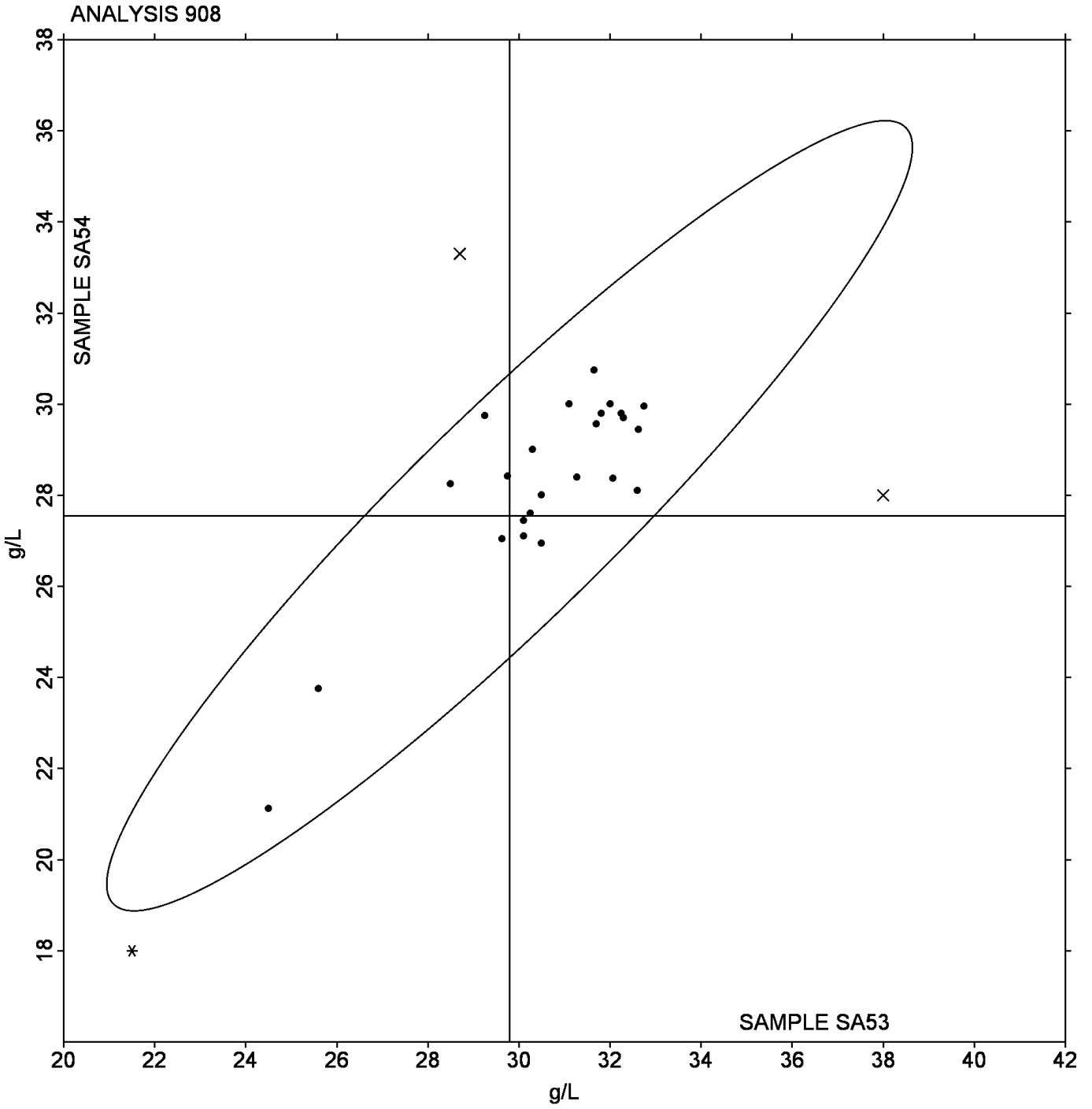
8AAQEW (X) - Inconsistent in testing between samples.

H7SNUM (X) - Inconsistent in testing between samples.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA53 <i>White Grenache</i>			Sample SA54 <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	29.95	2.26	0.16	27.90	2.47	0.35	16	20
Segmented Flow	32.00	0.00	2.21	30.00	0.00	2.45	1	2
FTIR	30.87	0.55	1.08	28.66	1.22	1.11	3	3
Other _____	32.30	0.22	2.51	28.99	0.88	1.44	4	4

Analysis 908
Residual Sugar



ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 909

L-Malic Acid

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
11QHSF		1.552	-0.107	-0.71	2.759	-0.280	-0.80
1X7W3M		1.900	0.241	1.59	3.650	0.611	1.74
2FNL9D	X	0.155	-1.504	-9.94	0.290	-2.749	-7.84
3BNJFG	X	2.420	0.761	5.03	3.985	0.946	2.70
3FPVPG	X	0.072	-1.587	-10.49	0.112	-2.927	-8.35
3JC8K6		1.824	0.165	1.09	3.232	0.192	0.55
4NB9SL		1.700	0.041	0.27	2.975	-0.064	-0.18
4Q521A		1.530	-0.129	-0.85	2.909	-0.130	-0.37
649U5K	*	1.600	-0.059	-0.39	2.300	-0.739	-2.11
64VVDN		1.641	-0.019	-0.12	3.253	0.214	0.61
67FP83		1.740	0.081	0.53	3.050	0.011	0.03
6J3DRA		1.415	-0.245	-1.62	2.184	-0.855	-2.44
7TJPD7		1.585	-0.074	-0.49	2.920	-0.119	-0.34
7WUCJQ		1.565	-0.094	-0.62	2.845	-0.194	-0.55
8EA61K		1.640	-0.020	-0.13	3.128	0.088	0.25
91DARB		1.675	0.016	0.10	3.035	-0.004	-0.01
9CM4UP		1.656	-0.003	-0.02	3.204	0.164	0.47
AE1B7P		1.725	0.066	0.44	3.685	0.646	1.84
D8L7ZS	X	2.790	1.131	7.47	5.350	2.311	6.59
E8K293		1.551	-0.108	-0.71	2.935	-0.104	-0.30
EGNXXU	X	0.078	-1.582	-10.45	0.228	-2.812	-8.02
EU4KJ7		1.420	-0.239	-1.58	2.640	-0.399	-1.14
F1MSGJ		1.650	-0.009	-0.06	3.105	0.066	0.19
F37LBY		1.570	-0.089	-0.59	3.090	0.051	0.14
FC2GW2		1.555	-0.104	-0.69	2.640	-0.399	-1.14
GFGQ6K		1.603	-0.056	-0.37	3.151	0.112	0.32
J8E1WK		1.895	0.236	1.56	3.570	0.531	1.51
K29R1B	X	2.692	1.033	6.83	1.521	-1.519	-4.33
K731VP		1.656	-0.004	-0.02	3.076	0.037	0.10
KGJWEA		1.650	-0.009	-0.06	3.100	0.061	0.17
MUXXRT		1.915	0.256	1.69	3.385	0.346	0.99
MXHMB6		1.615	-0.044	-0.29	3.025	-0.014	-0.04
NDNC22		1.875	0.216	1.43	3.595	0.556	1.59
PP4JDW		1.610	-0.049	-0.32	3.040	0.001	0.00
QJR3FS		1.868	0.209	1.38	3.472	0.432	1.23

ASEV-CTS Wine Industry Interlaboratory Testing Program
Analysis 909
L-Malic Acid

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
QYZHEU		1.905	0.246	1.62	3.780	0.741	2.11
R5XQZM		1.650	-0.009	-0.06	3.005	-0.034	-0.10
RSU8HL		1.552	-0.107	-0.71	2.776	-0.263	-0.75
SZK91H		1.600	-0.059	-0.39	3.075	0.036	0.10
T7FMHX		1.815	0.156	1.03	3.195	0.156	0.44
TFVH2J	*	1.530	-0.129	-0.85	2.230	-0.809	-2.31
TQ66BQ		1.565	-0.094	-0.62	2.970	-0.069	-0.20
TW5TRH		1.680	0.021	0.14	3.030	-0.009	-0.03
U6HUPJ		1.668	0.008	0.06	3.092	0.052	0.15
UHUC27		1.390	-0.269	-1.78	2.795	-0.244	-0.70
UPYJVA		1.560	-0.099	-0.66	2.969	-0.071	-0.20
USJCQQ		1.950	0.291	1.92	3.300	0.261	0.74
W65VZ4	X	1.015	-0.644	-4.26	2.970	-0.069	-0.20
WB3NL2		1.490	-0.169	-1.12	2.570	-0.469	-1.34
X4K25P	*	2.000	0.341	2.25	3.120	0.081	0.23
XU6YFW		1.470	-0.189	-1.25	2.870	-0.169	-0.48
YJJAXP	X	2.361	0.702	4.64	4.274	1.235	3.52

Grand Means		Summary Statistics	
	1.6592 g/L		3.0393 g/L
Std Dev Btwn Labs			
	0.1513 g/L		0.3505 g/L
Statistics based on 44 of 52 reporting participants			

Wines tested: SA53: White Grenache; SA54: White Zinfandel

Analysis 909

L-Malic Acid

Comments on assigned Data Flags

2FNL9D (X) - Low data for both samples. Lab indicated g/L, but data may be reported in g/100mL.

3BNJFG (X) - High data for both samples.

3FPVPG (X) - Low data for both samples.

D8L7ZS (X) - High data for both samples.

EGNXXU (X) - Low data for both samples.

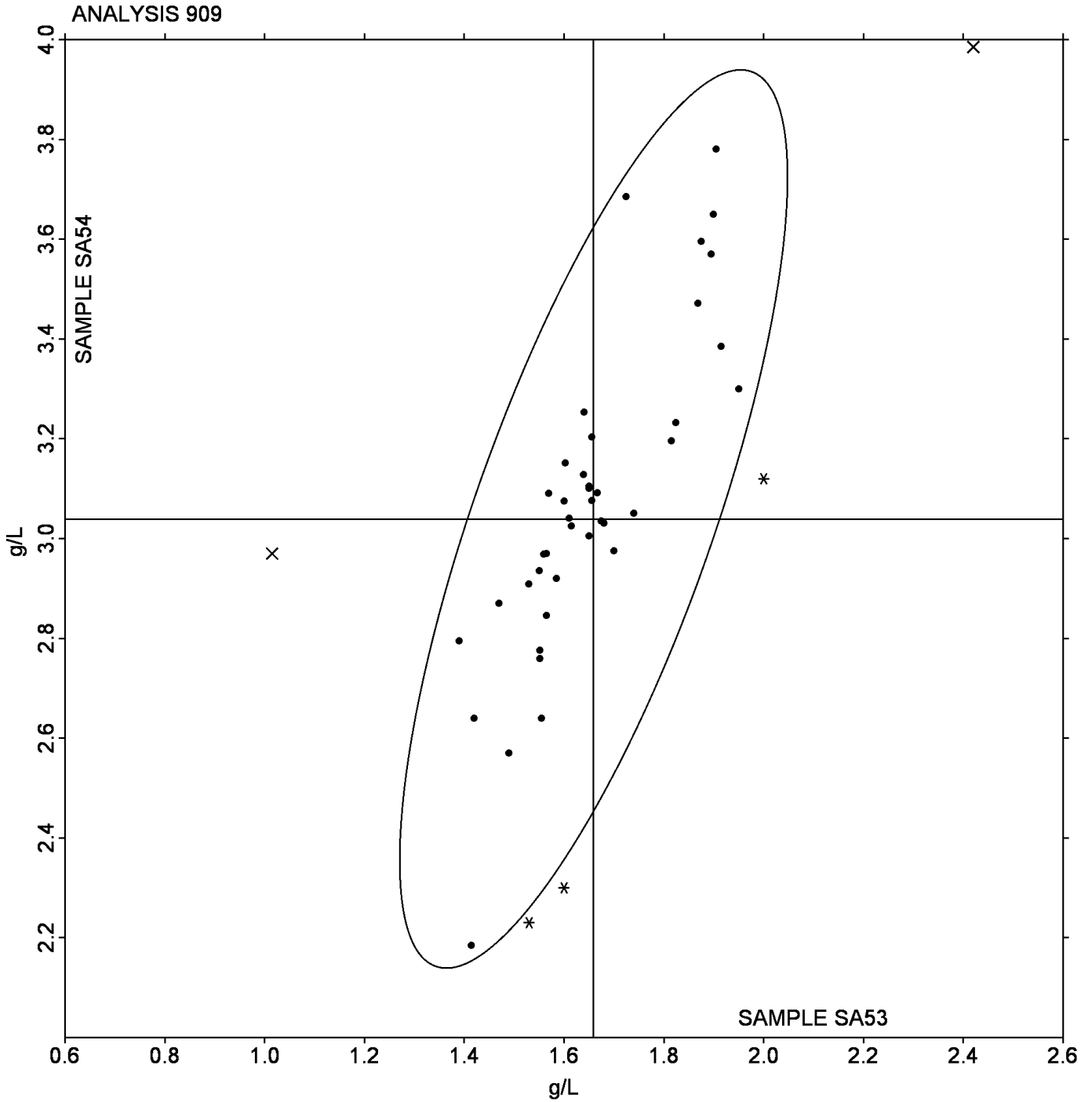
K29R1B (X) - Inconsistent in testing between samples. Lab may have transposed data between sample sets.

W65VZ4 (X) - Inconsistent in testing between samples, data for Sample SA53 are high. Also inconsistent in testing within Sample SA53.

YJJAXP (X) - High data for both samples. Possible Systematic Error.

Analysis 909

L-Malic Acid



ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 910

Glucose + Fructose

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2343SV		33.25	2.16	1.25	29.25	1.01	0.65
2FMBA8		31.18	0.09	0.05	28.68	0.44	0.28
2H29QW		30.90	-0.19	-0.11	27.64	-0.60	-0.39
34LQ79	X	8.84	-22.25	-12.84	9.05	-19.19	-12.36
3EFK6K		31.50	0.41	0.24	28.30	0.06	0.04
3PE8C2	*	35.50	4.41	2.55	32.00	3.76	2.42
5L34LX		29.00	-2.09	-1.20	25.50	-2.74	-1.76
5NTTY4		29.85	-1.24	-0.71	26.10	-2.14	-1.38
5PLPLC		30.87	-0.22	-0.13	27.01	-1.23	-0.79
6J8CXA		32.00	0.91	0.53	30.00	1.76	1.13
7X6KVC		30.70	-0.39	-0.22	28.50	0.26	0.17
954X1X	X	26.25	-4.84	-2.79	27.25	-0.99	-0.64
98PMKA		30.80	-0.29	-0.17	28.60	0.36	0.23
9S1G39		31.65	0.56	0.32	27.40	-0.84	-0.54
A2Y12A	X	66.00	34.91	20.15	66.50	38.26	24.65
A3CZGY	X	58.53	27.44	15.84	53.23	24.99	16.10
APFSJW	X	15.55	-15.54	-8.97	16.67	-11.57	-7.45
ASH5HN		29.42	-1.67	-0.96	27.39	-0.85	-0.55
B36CZH		29.95	-1.14	-0.66	27.60	-0.64	-0.41
BCVU3R		32.18	1.09	0.63	28.36	0.13	0.08
D5MW4S		34.47	3.38	1.95	31.04	2.80	1.80
DAXECD		28.15	-2.94	-1.70	27.55	-0.69	-0.44
F5T31R		33.12	2.03	1.17	29.32	1.08	0.69
GBHBJV		32.60	1.51	0.87	28.10	-0.14	-0.09
GDRR89		33.18	2.09	1.21	28.32	0.08	0.05
HWDVTE		31.10	0.01	0.01	27.20	-1.04	-0.67
HXEZW9		26.78	-4.31	-2.49	24.85	-3.39	-2.19
J995MR		33.48	2.39	1.38	30.28	2.04	1.31
JB5KCV	X	3.08	-28.01	-16.17	2.75	-25.49	-16.42
K8KVTH		32.67	1.58	0.91	28.35	0.11	0.07
LMHB93		32.25	1.16	0.67	29.80	1.56	1.01
NDSAD4	X	1.33	-29.76	-17.18	1.35	-26.89	-17.32
PHKF6U		28.74	-2.35	-1.36	25.02	-3.22	-2.08
PK55R6		30.70	-0.39	-0.22	28.05	-0.19	-0.12
PT79Z2		31.30	0.21	0.12	28.55	0.31	0.20

ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 910

Glucose + Fructose

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
PV1GJL		31.10	0.01	0.01	27.40	-0.84	-0.54
Q8KC8W		28.12	-2.97	-1.71	27.34	-0.90	-0.58
QMHPF1		28.30	-2.79	-1.61	27.95	-0.29	-0.19
QQMKEP		31.05	-0.04	-0.02	27.91	-0.33	-0.21
RNXETW		28.60	-2.49	-1.44	25.35	-2.89	-1.86
RXDHHG		30.10	-0.99	-0.57	27.40	-0.84	-0.54
RZ9X7L	X	1.24	-29.85	-17.23	1.23	-27.01	-17.40
TPL3BX		28.60	-2.49	-1.44	25.95	-2.29	-1.47
U822CK		32.05	0.96	0.56	28.50	0.26	0.17
V2AMZS		30.11	-0.98	-0.57	26.92	-1.32	-0.85
V3PQPH		30.50	-0.59	-0.34	27.75	-0.49	-0.31
V4GLBR	X	6.20	-24.89	-14.37	5.85	-22.39	-14.42
VNRHRG		31.40	0.31	0.18	28.83	0.59	0.38
VYQXEE	*	31.86	0.77	0.44	31.34	3.10	2.00
W92K2K		32.75	1.66	0.96	29.80	1.56	1.01
WMQHYP		30.50	-0.59	-0.34	30.00	1.76	1.13
XW1YXL		31.65	0.56	0.32	28.55	0.31	0.20
Y995KY		32.20	1.11	0.64	28.10	-0.14	-0.09
YCUU4A		31.30	0.21	0.12	28.90	0.66	0.43
YTW3YY		31.85	0.76	0.44	29.45	1.21	0.78
ZJVYLF		30.75	-0.34	-0.19	29.75	1.51	0.97
ZP6CHZ		32.15	1.06	0.61	29.55	1.31	0.84

Grand Means

31.087 g/L

Summary Statistics

28.238 g/L

Std Dev Btwn Labs

1.732 g/L

1.552 g/L

Statistics based on 48 of 57 reporting participants

Wines tested: SA53: White Grenache; SA54: White Zinfandel

Analysis 910

Glucose + Fructose

Comments on assigned Data Flags

34LQ79 (X) - Low data for both samples.

954X1X (X) - Inconsistent in testing between samples, data for Sample SA53 are high.

A2Y12A (X) - Extreme data.

A3CZGY (X) - High data for both samples.

APFSJW (X) - Low data for both samples.

JB5KCV (X) - Extreme data. Lab indicated reporting in g/L, but data appear to be in g/100mL.

NDSAD4 (X) - Extreme data.

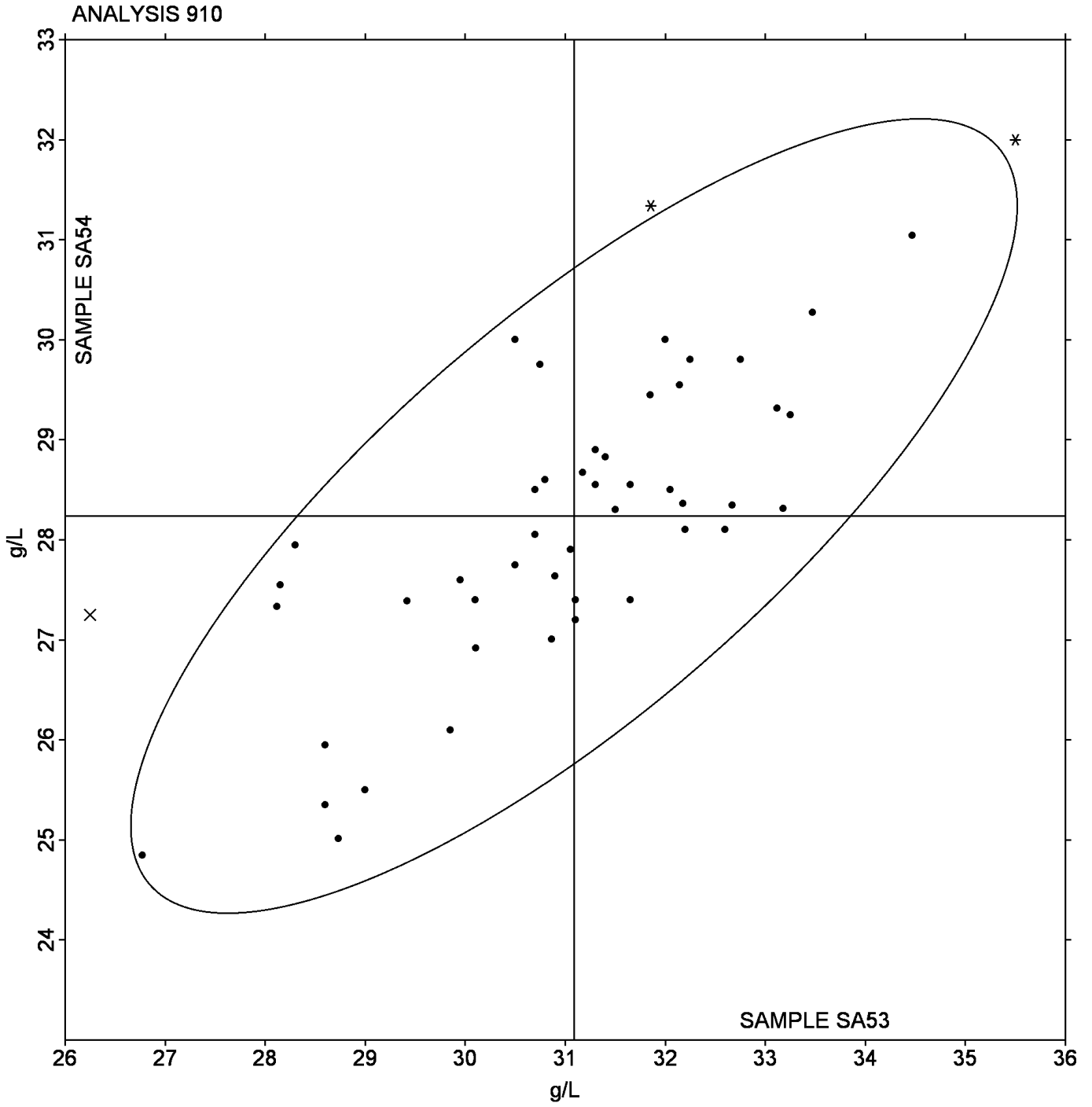
RZ9X7L (X) - Extreme data.

V4GLBR (X) - Low data for both samples.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA53 <i>White Grenache</i>			Sample SA54 <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	31.10	0.00	0.01	27.20	0.00	-1.04	1	2
HPLC	31.35	0.79	0.26	28.93	0.93	0.69	3	3
Enzymatic/Spectrophotometric	30.94	1.76	-0.15	28.06	1.37	-0.18	32	40
Segmented Flow	31.65	0.00	0.56	28.55	0.00	0.31	1	1
FTIR	30.50	1.06	-0.59	28.12	1.82	-0.12	6	7
Other _____	31.63	2.63	0.55	27.66	2.06	-0.58	3	4

Analysis 910
Glucose + Fructose



ASEV-CTS Wine Industry Interlaboratory Testing Program

Research Property 950

Research Property - Copper (Cu) Content

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Target Value	% Diff from Target Value	Lab Mean	Diff from Target Value	% Diff from Target Value
4CVFNJ		0.2095	0.0395	23.2%	0.3250	0.0697	27.3%
B8L4TC		0.2050	0.0350	20.6%	0.2700	0.0147	5.8%
BY724H		0.1500	-0.0200	-11.8%	0.2650	0.0097	3.8%
D62N62		0.1350	-0.0350	-20.6%	0.2150	-0.0403	-15.8%
D8B9ZG		0.3500	0.1800	105.9%	0.3450	0.0897	35.1%
FQ2121		0.0300	-0.1400	-82.4%	0.1500	-0.1053	-41.2%
JAUN1Y		0.0900	-0.0800	-47.1%	0.2200	-0.0353	-13.8%
JQMGEK		0.2570	0.0870	51.2%	0.1650	-0.0903	-35.4%
K6XURN		0.2200	0.0500	29.4%	0.3250	0.0697	27.3%
L312FA		0.1350	-0.0350	-20.6%	0.2400	-0.0153	-6.0%
M5E9TA		0.2020	0.0320	18.8%	0.2935	0.0382	15.0%
N6NZXS		0.0410	-0.1290	-75.9%	No data reported for this sample %		
NWFEKY		0.1600	-0.0100	-5.9%	0.2900	0.0347	13.6%
PBCQT2		0.1750	0.0050	2.9%	0.2900	0.0347	13.6%
QWLP8M		0.1650	-0.0050	-2.9%	0.2750	0.0197	7.7%
UA1786		0.4500	0.2800	164.7%	1.1750	0.9197	360.2%
VKS7VG		0.1260	-0.0440	-25.9%	0.2120	-0.0433	-17.0%
VMC1QW		0.2450	0.0750	44.1%	No data reported for this sample %		
YNVAW1		0.1100	-0.0600	-35.3%	0.2050	-0.0503	-19.7%

Research Property Target Value		
Target Value	0.17000 mg/L	0.25530 mg/L
<i>CTS has chosen to use an average value as the target value for this round.</i>		

Wines tested: SA53: White Grenache; SA54: White Zinfandel

Consensus Average
(may differ from target value)

0.16997 mg/L

0.25534 mg/L

This consensus average is based on 16 reporting participants.

Research Property 950

Research Property - Copper (Cu) Content

Comments on assigned Data Flags

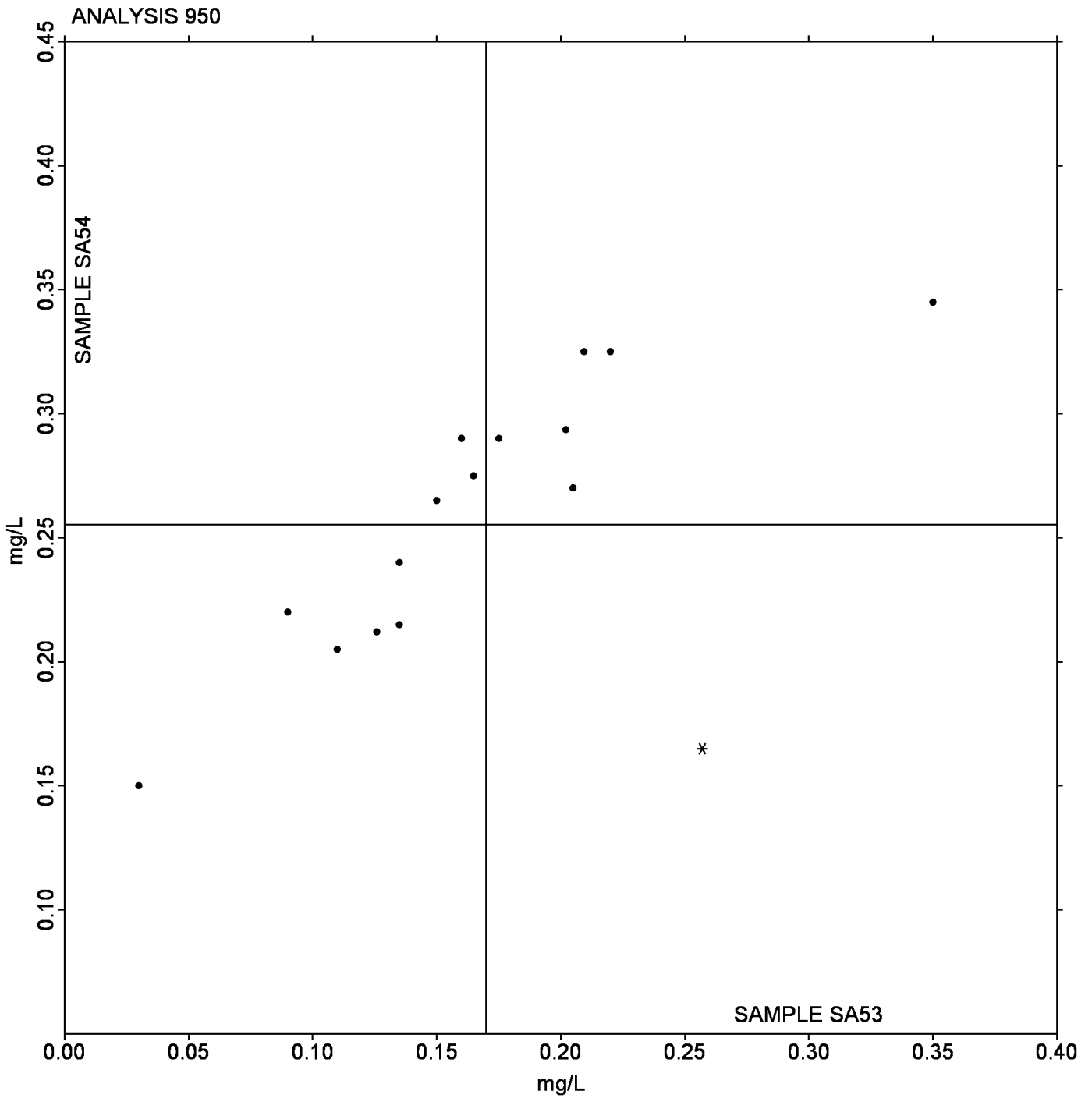
N6NZXS (M) - Laboratory did not submit data for Sample SA54.

UA1786 (X) - High data for both samples.

VMC1QW (M) - Laboratory did not submit data for Sample SA54.

Research Property 950

Research Property - Copper (Cu) Content



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

Research Property 951

Research Property: Potassium Sorbate Content as sorbic acid

WebCod	Data Flag	Sample SA53			Sample SA54		
		Lab Mean	Diff from Target Value	% Diff from Target Value	Lab Mean	Diff from Target Value	% Diff from Target Value
264W76		185.0	9.9	5.6%	150.5	-21.8	-12.6%
2974WV		184.5	9.4	5.4%	180.5	8.2	4.8%
3TJZEU		0.2	-175.0	-99.9%	0.1	-172.1	-99.9%
9MG36G		200.0	24.9	14.2%	190.0	17.7	10.3%
C89JEL		183.5	8.4	4.8%	179.5	7.2	4.2%
C89SX5		183.5	8.4	4.8%	175.0	2.7	1.6%
D2F6AA		184.0	8.9	5.1%	161.0	-11.3	-6.5%
D5RUFU		189.2	14.1	8.0%	184.5	12.2	7.1%
DG1GGE		176.5	1.4	0.8%	174.0	1.7	1.0%
FVFE3D		145.0	-30.1	-17.2%	147.5	-24.8	-14.4%
G9VHYD		157.5	-17.6	-10.1%	153.0	-19.3	-11.2%
GWC9F1		147.0	-28.1	-16.1%	162.0	-10.3	-6.0%
KVC5SV		159.0	-16.1	-9.2%	159.5	-12.8	-7.4%
MQ3K7V		179.0	3.9	2.2%	186.0	13.7	8.0%
MYKFFG		170.0	-5.1	-2.9%	180.0	7.7	4.5%
N5FMFR		137.0	-38.1	-21.8%	No data reported for this sample %		
NCTQCR		176.0	0.9	0.5%	172.5	0.2	0.1%
PGAWGB		183.5	8.4	4.8%	189.3	17.0	9.9%
S5C8V5		170.0	-5.1	-2.9%	187.0	14.7	8.6%
X8KMEM		179.0	3.9	2.2%	169.1	-3.2	-1.8%

Research Property Target Value		
Target Value	175.12 Mg/L	172.27 Mg/L
<i>CTS has chosen to use an average value as the target value for this round.</i>		

Wines tested: SA53: White Grenache; SA54: White Zinfandel

Consensus Average (may differ from target value) 175.12 Mg/L 172.27 Mg/L

This consensus average is based on 18 reporting participants.

Research Property 951

Research Property: Potassium Sorbate Content as sorbic acid

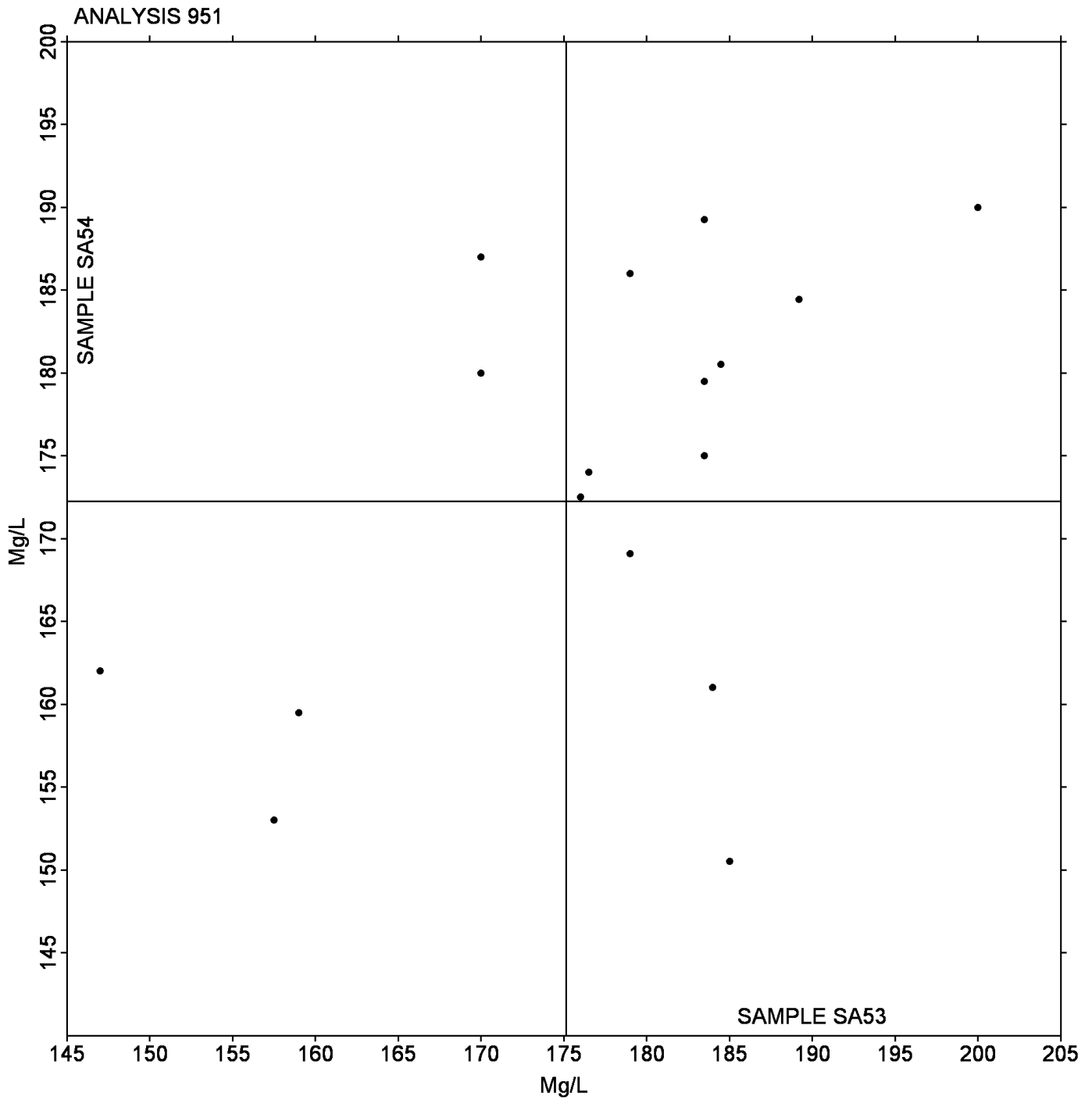
Comments on assigned Data Flags

3TJZEU (X) - Extreme data. Data appear to be off by a factor of 1000.

N5FMFR (M) - Laboratory did not submit data for Sample SA54.

Research Property 951

Research Property: Potassium Sorbate Content as sorbic acid



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