



## Wine Industry Interlaboratory Program

### Summary Report #039- Fall 2011

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[Introduction to the Wine Program](#)

[Explanation of Tables and Definitions of Terms](#)

Analysis	Analysis Name
<u><a href="#">901</a></u>	<u><a href="#">Ethanol (% of volume)</a></u>
<u><a href="#">902</a></u>	<u><a href="#">Total Sulfur Dioxide</a></u>
<u><a href="#">903</a></u>	<u><a href="#">Free Sulfur Dioxide</a></u>
<u><a href="#">904</a></u>	<u><a href="#">Titratable Acidity</a></u>
<u><a href="#">905</a></u>	<u><a href="#">Volatile Acidity</a></u>
<u><a href="#">906</a></u>	<u><a href="#">Specific Gravity</a></u>
<u><a href="#">907</a></u>	<u><a href="#">pH</a></u>
<u><a href="#">908</a></u>	<u><a href="#">Residual Sugar</a></u>
<u><a href="#">909</a></u>	<u><a href="#">L-Malic Acid</a></u>
<u><a href="#">910</a></u>	<u><a href="#">Glucose + Fructose</a></u>
<u><a href="#">911</a></u>	<u><a href="#">Copper Content</a></u>
<u><a href="#">915</a></u>	<u><a href="#">A420nm (1cm path)</a></u>
<u><a href="#">916</a></u>	<u><a href="#">A520nm (1cm path)</a></u>
<u><a href="#">950</a></u>	<u><a href="#">Research Property: Potassium (K) Content</a></u>
<u><a href="#">951</a></u>	<u><a href="#">Research Property: Conductivity at 20C</a></u>
<u><a href="#">952</a></u>	<u><a href="#">Research Property: Calcium Content</a></u>

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## **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.

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## Key for Web Summary Report (Page 1 of 2)

<b>WebCode</b>	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.
<b>Lab Mean</b>	The average of the test results obtained by the participant.
<b>Grand Mean</b>	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.
<b>Difference from Grand Mean</b>	The difference of the LAB MEAN from the GRAND MEAN.
<b>Between-Lab Standard Deviation</b>	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).
<b>Comparative Performance Value</b>	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.
<b>Data Flag</b>	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	<b>CAUTION</b> - 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	<b>STOP</b> - 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	<b>PROCEED</b> - 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.

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### 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.

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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)

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
24LD26		9.94	-0.13	-1.80	10.72	-0.14	-2.00
2HKWLV		10.05	-0.01	-0.20	10.87	0.01	0.10
2JGELC		10.10	0.03	0.43	10.88	0.01	0.17
2KDR7J		10.04	-0.02	-0.34	10.85	-0.01	-0.18
2PLZMN	X	10.81	0.75	10.42	10.01	-0.86	-12.02
3N4F7X	*	10.19	0.12	1.69	11.02	0.16	2.20
48VYKG		10.11	0.04	0.57	10.92	0.06	0.80
4ALX2Z		9.96	-0.10	-1.45	10.77	-0.09	-1.30
4LZPNE		10.07	0.01	0.08	10.86	0.00	-0.04
4QWZYT	X	11.20	1.14	15.87	11.30	0.44	6.12
4RAKTP		10.15	0.08	1.13	10.93	0.07	0.94
62K3F8		9.98	-0.09	-1.24	10.75	-0.11	-1.58
64AGZB		10.02	-0.05	-0.69	10.83	-0.03	-0.46
6GLFUN		10.17	0.10	1.41	10.92	0.06	0.80
6HV6DZ	*	10.15	0.09	1.20	10.90	0.04	0.52
6XBV8F		10.05	-0.02	-0.27	10.83	-0.03	-0.46
7PA2MM		10.04	-0.02	-0.34	10.84	-0.02	-0.32
84AKUH		10.09	0.02	0.29	10.89	0.02	0.31
8FJXWY		9.92	-0.15	-2.08	10.70	-0.16	-2.28
8LLZUJ		10.05	-0.01	-0.20	10.84	-0.03	-0.39
8Z72J4		10.12	0.06	0.78	10.93	0.06	0.87
98H3B6		10.05	-0.01	-0.20	10.81	-0.06	-0.81
9CUVKJ		10.06	0.00	-0.06	10.87	0.00	0.03
9DHHLK	X	9.80	-0.26	-3.69	10.60	-0.27	-3.75
9GCUZY		10.15	0.09	1.20	10.95	0.09	1.22
ALHLJ2		10.06	-0.01	-0.13	10.86	0.00	-0.04
AN8XGL	*	10.05	-0.01	-0.20	10.90	0.04	0.52

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 901

## Ethanol (% of volume)

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
APKC3A		10.11	0.05	0.64	10.90	0.03	0.45
BHXYKM		10.11	0.04	0.57	10.93	0.07	0.94
BKHV67		10.10	0.04	0.50	10.91	0.05	0.66
BKNXZ7	X	9.99	-0.07	-1.04	10.73	-0.14	-1.93
BV3WA2		10.06	0.00	-0.06	10.89	0.03	0.38
BXTVUR		10.01	-0.06	-0.77	10.81	-0.05	-0.69
CDHTHK		10.18	0.12	1.62	10.97	0.11	1.50
CTDHPX	X	10.95	0.89	12.38	9.95	-0.91	-12.79
DK8NAV		10.14	0.08	1.06	10.94	0.07	1.01
DKCYCT	X	10.07	0.01	0.08	10.67	-0.19	-2.70
DNT9GK	X	9.76	-0.31	-4.32	10.70	-0.16	-2.28
ED7HKK	X	9.81	-0.26	-3.62	10.71	-0.16	-2.21
G3KZ2C	X	10.10	0.04	0.50	11.00	0.14	1.92
GYZ4GR		10.21	0.15	2.04	11.00	0.14	1.92
HC4EEJ		10.06	-0.01	-0.13	10.85	-0.01	-0.18
J63KUQ		10.10	0.04	0.50	10.90	0.04	0.52
J6M7MG	X	10.00	-0.06	-0.90	10.60	-0.26	-3.68
JLMP6J		10.03	-0.03	-0.48	10.83	-0.03	-0.46
JP6YAB		10.00	-0.06	-0.90	10.80	-0.06	-0.88
KDLUJQ		10.08	0.01	0.15	10.86	0.00	-0.04
KG44PG	X	11.10	1.04	14.47	12.10	1.24	17.33
L4WN3D		10.16	0.10	1.34	10.95	0.09	1.22
L7J6HC	X	9.90	-0.16	-2.29	10.80	-0.06	-0.88
LA36TL		9.99	-0.08	-1.10	10.82	-0.04	-0.60
MU6HTC	X	10.40	0.34	4.69	11.20	0.34	4.72
MXJATD		10.16	0.10	1.34	10.98	0.11	1.57
N92KZN		10.05	-0.01	-0.20	10.84	-0.02	-0.32

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 901

## Ethanol (% of volume)

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
NNT4F7		10.01	-0.05	-0.76	10.80	-0.06	-0.88
P4M8VV		10.02	-0.05	-0.69	10.81	-0.06	-0.81
PKNMUV	*	9.93	-0.14	-1.94	10.78	-0.09	-1.23
Q2Y2RP		10.10	0.04	0.50	10.89	0.02	0.31
R8264N		9.91	-0.15	-2.15	10.70	-0.17	-2.35
TDHL3W	X	9.75	-0.31	-4.39	10.22	-0.64	-9.01
THAXXT		9.97	-0.10	-1.38	10.78	-0.09	-1.23
TLZUVZ		10.02	-0.05	-0.69	10.83	-0.03	-0.46
TUNFMY		10.00	-0.06	-0.90	10.80	-0.06	-0.88
UTUQ63	X	10.55	0.49	6.79	11.30	0.44	6.12
VLMV7M		10.12	0.05	0.71	10.92	0.05	0.73
WCT3EM		10.17	0.10	1.41	10.97	0.11	1.50
X4XF99		10.10	0.04	0.50	10.90	0.04	0.52
X8C4DD		10.00	-0.06	-0.90	10.80	-0.06	-0.88
XA32BK		10.09	0.03	0.36	10.88	0.01	0.17
Y4QJ7N		10.10	0.04	0.50	10.90	0.04	0.52
YM78X9		10.04	-0.02	-0.34	10.83	-0.04	-0.53
ZRC3VW	X	9.97	-0.10	-1.38	10.86	-0.01	-0.11

## Grand Means

10.064 percent

## Summary Statistics

10.863 percent

## Std Dev Btwn Labs

0.072 percent

0.071 percent

Statistics based on 56 of 72 reporting participants

Wines tested: SA75: Moscato; SA76: White Blend

**ASEV-CTS Wine Industry Interlaboratory Testing Program**

**Analysis 901**

**Ethanol (% of volume)**

**Comments on assigned Data Flags**

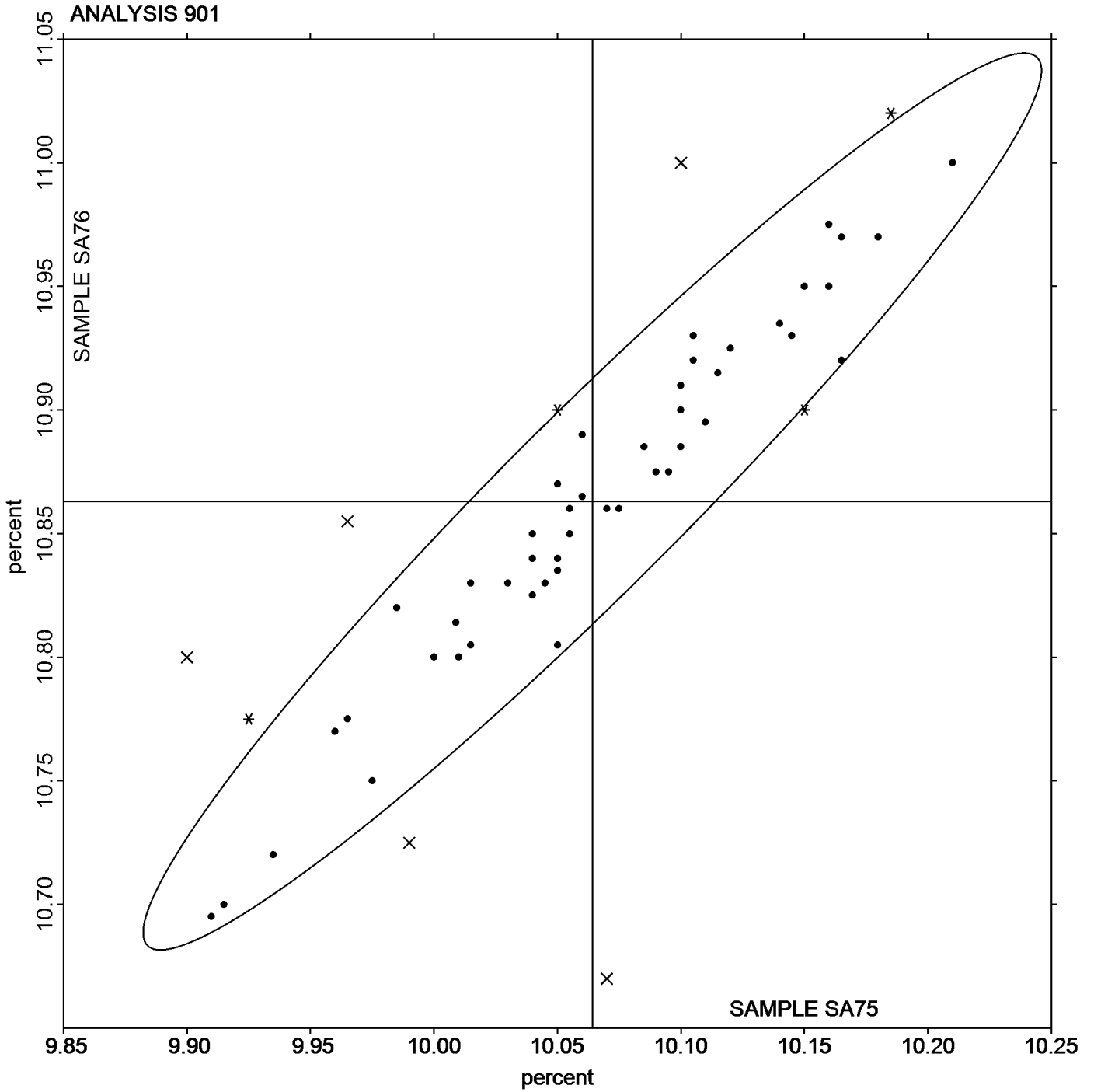
- 2PLZMN (X) - Inconsistent in testing between samples, data for Sample SA75 are high and data for Sample SA76 are low. Lab may have transposed data.
- 4QWZYT (X) - Data for both samples are high. Also inconsistent in testing with Sample SA75.
- 9DHHLK (X) - Data for both samples are high. Possible Systematic Error.
- BKNXZ7 (X) - Inconsistent in testing between samples.
- CTDHPX (X) - Inconsistent in testing between samples, data for Sample SA75 are high and data for Sample SA76 are low. Lab may have transposed data.
- DKCYCT (X) - Inconsistent in testing between samples.
- DNT9GK (X) - Inconsistent in testing between samples, data for Sample SA75 are low. Also inconsistent in testing with both samples.
- ED7HKK (X) - Inconsistent in testing between samples, data for Sample SA75 are low.
- G3KZ2C (X) - Inconsistent in testing between samples.
- J6M7MG (X) - Inconsistent in testing between samples, data for Sample SA76 are high. Also inconsistent in testing within Sample SA75.
- KG44PG (X) - Data for both samples are high.
- L7J6HC (X) - Inconsistent in testing between samples.
- MU6HTC (X) - Data for both samples are high. Also inconsistent in testing within Sample SA75.
- TDHL3W (X) - Data for both samples are low. Also inconsistent in testing within Sample SA76.
- UTUQ63 (X) - Data for both samples are high.
- ZRC3VW (X) - Inconsistent in testing between samples.

**Results by Methodology (as reported by laboratory)**

Test Methodology	Sample SA75 <i>Moscato</i>			Sample SA76 <i>White Blend</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Gas Chromatography Method	10.16	0.07	0.09	10.97	0.05	0.10	2	3
Near Infrared Method	10.06	0.06	0.00	10.86	0.07	0.00	34	37
Dist. / Density Method	10.03	0.09	-0.03	10.83	0.08	-0.03	4	10
FTIR	10.09	0.08	0.02	10.88	0.06	0.02	8	12
Other _____	10.02	0.07	-0.04	10.82	0.08	-0.05	4	5

Analysis 901

Ethanol (% of volume)



## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 902

## Total Sulfur Dioxide

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
263E3L		126.0	8.0	1.25	132.0	5.8	0.80
4MBFQ4		116.0	-2.0	-0.30	126.5	0.3	0.04
6EAL7B		121.0	3.0	0.47	131.5	5.3	0.73
6WUNV7		113.5	-4.5	-0.69	123.0	-3.2	-0.44
6WX9MF		114.5	-3.5	-0.54	121.0	-5.2	-0.72
76QKCM	*	134.5	16.5	2.57	144.0	17.8	2.46
7NVGUC	X	147.0	29.0	4.52	154.0	27.8	3.84
976ER6		123.0	5.0	0.79	129.5	3.3	0.45
9APBBP	*	131.0	13.0	2.03	146.0	19.8	2.73
9CDM9A		120.5	2.5	0.40	127.0	0.8	0.11
AL6XHA		117.0	-1.0	-0.15	125.5	-0.7	-0.10
ALYMKH		115.0	-3.0	-0.46	122.5	-3.7	-0.51
AY3LEP		122.5	4.5	0.71	129.0	2.8	0.38
BCQG2Z		106.5	-11.5	-1.78	117.0	-9.2	-1.27
BDZH78		126.5	8.5	1.33	128.0	1.8	0.25
BTNJED	X	130.0	12.0	1.87	116.0	-10.2	-1.41
BUHC8B		122.0	4.0	0.63	128.5	2.3	0.31
BUN8AV		122.5	4.5	0.71	131.5	5.3	0.73
BURPBF		120.0	2.0	0.32	130.0	3.8	0.52
CJ3HT2		120.5	2.5	0.40	128.0	1.8	0.25
CP992A		108.8	-9.2	-1.42	115.5	-10.7	-1.48
D2MWYJ	*	106.5	-11.5	-1.78	106.5	-19.7	-2.72
DC3KGJ	X	131.5	13.5	2.11	121.0	-5.2	-0.72
DEN6N9		116.5	-1.5	-0.23	128.5	2.3	0.31
E8JYWB		116.0	-2.0	-0.30	127.0	0.8	0.11
EABNMH		118.0	0.0	0.01	122.0	-4.2	-0.58
F2BT3P		110.5	-7.5	-1.16	126.0	-0.2	-0.03

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 902

## Total Sulfur Dioxide

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
F8BYRZ	*	101.5	-16.5	-2.56	110.5	-15.7	-2.17
FWW7CQ	X	74.5	-43.5	-6.76	76.5	-49.7	-6.87
G9MWFM		123.0	5.0	0.79	134.0	7.8	1.07
HE3GU2		122.0	4.0	0.63	135.5	9.3	1.28
HRCUHU	X	119.5	1.5	0.24	114.0	-12.2	-1.69
JE76AK	X	153.6	35.6	5.54	149.6	23.4	3.23
JN49VF		126.5	8.5	1.33	134.0	7.8	1.07
JYBBLD		115.0	-3.0	-0.46	124.0	-2.2	-0.31
JYGKK6		121.0	3.0	0.47	131.5	5.3	0.73
K74LXE		113.0	-5.0	-0.77	121.0	-5.2	-0.72
K992JZ	X	83.0	-35.0	-5.44	117.0	-9.2	-1.27
KUWZ9A		126.5	8.5	1.33	135.0	8.8	1.21
L4AAN8		117.0	-1.0	-0.15	125.0	-1.2	-0.17
L4KML7		117.5	-0.5	-0.07	127.5	1.3	0.18
L77H3J		120.5	2.5	0.40	127.0	0.8	0.11
LGPLAN		118.0	0.0	0.01	125.5	-0.7	-0.10
M74QK8		104.1	-13.9	-2.16	111.0	-15.2	-2.10
MHHJDN		118.0	0.0	0.01	127.0	0.8	0.11
NJ6AQK		116.0	-2.0	-0.30	129.0	2.8	0.38
NLTNBN		119.5	1.5	0.24	122.5	-3.7	-0.51
NXLF88	X	62.5	-55.5	-8.63	85.5	-40.7	-5.62
PW9HY8		119.5	1.5	0.24	130.0	3.8	0.52
PYYGER	*	111.0	-7.0	-1.08	110.0	-16.2	-2.24
QB3QEF		115.6	-2.4	-0.37	120.9	-5.3	-0.73
QEJZJ8		121.4	3.4	0.53	131.4	5.2	0.72
QPJ8GW	X	102.5	-15.5	-2.40	138.0	11.8	1.63
R32YKC	*	115.2	-2.8	-0.43	112.0	-14.2	-1.96

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 902

## Total Sulfur Dioxide

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
R43M9H		127.0	9.0	1.41	134.5	8.3	1.14
RLHJL		126.5	8.5	1.33	130.0	3.8	0.52
TTBR4Y		117.8	-0.2	-0.02	125.3	-0.9	-0.13
TXQZTJ	X	161.0	43.0	6.70	160.0	33.8	4.66
U3XPMH		117.0	-1.0	-0.15	126.5	0.3	0.04
UT7G2Z	*	111.0	-7.0	-1.08	128.0	1.8	0.25
VL6MF8		119.3	1.3	0.21	127.3	1.0	0.14
VUGENM		120.5	2.5	0.40	126.5	0.3	0.04
WBLN93		115.0	-3.0	-0.46	128.0	1.8	0.25
WP32JT		116.5	-1.5	-0.23	125.0	-1.2	-0.17
WQEYT6		112.5	-5.5	-0.85	123.5	-2.7	-0.38
WVV7EJ		119.5	1.5	0.24	127.5	1.3	0.18
X3LRK3	X	150.5	32.5	5.06	157.0	30.8	4.25
XZTWV9		117.5	-0.5	-0.07	129.5	3.3	0.45
YCAJL7		113.5	-4.5	-0.69	122.0	-4.2	-0.58
YWECWZ		130.5	12.5	1.95	134.0	7.8	1.07
ZLMHRG		110.5	-7.5	-1.16	122.5	-3.7	-0.51
ZP6RW8		110.0	-8.0	-1.24	119.0	-7.2	-1.00

## Grand Means

117.95 mg/L

## Summary Statistics

126.22 mg/L

## Std Dev Btwn Labs

6.43 mg/L

7.24 mg/L

Statistics based on 61 of 72 reporting participants

Wines tested: SA75: Moscato; SA76: White Blend

## Analysis 902

## Total Sulfur Dioxide

**Comments on assigned Data Flags**

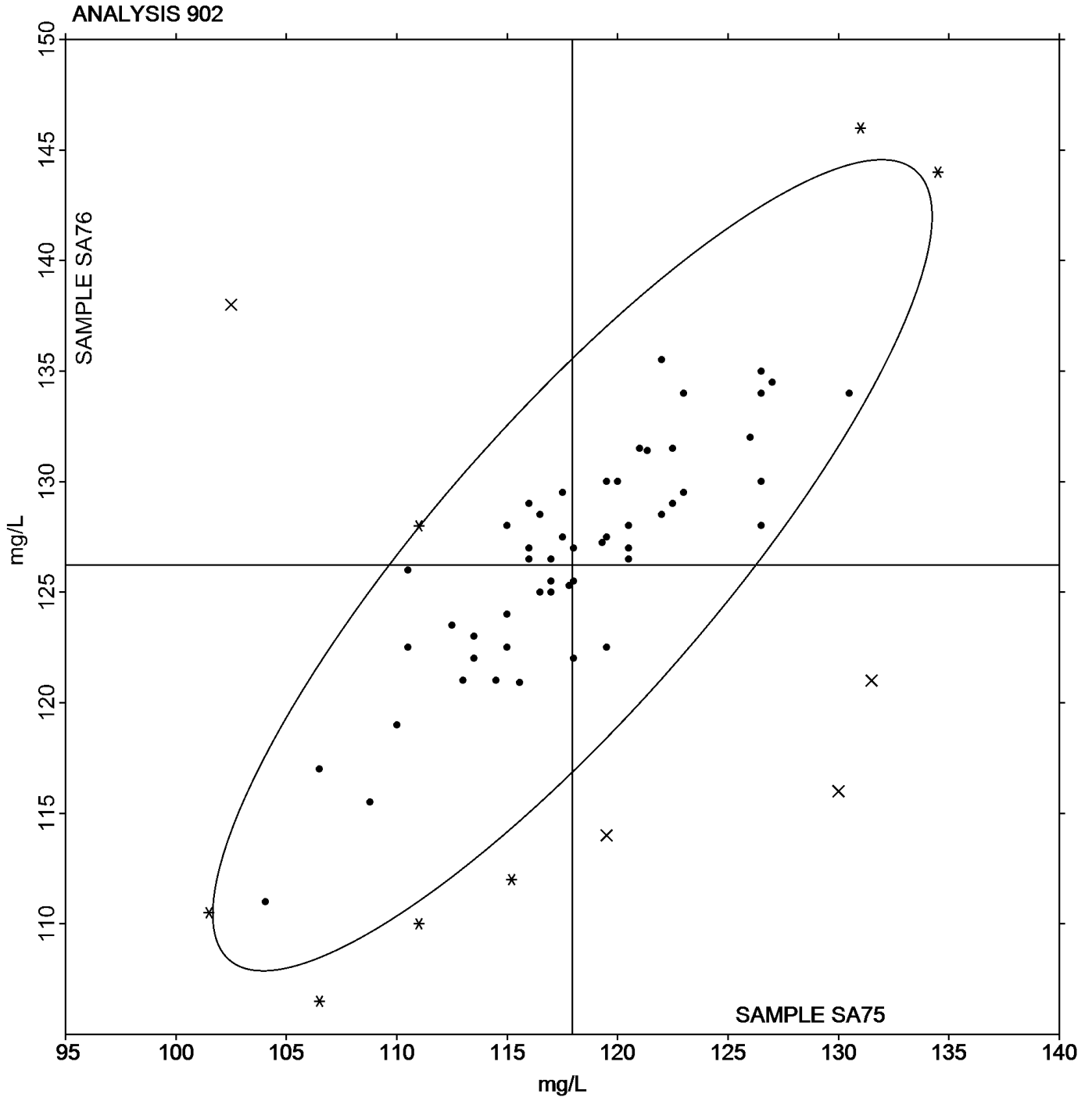
- 7NVGUC (X) - Data for both samples are high. Possible Systematic Error.
- BTNJED (X) - Inconsistent in testing between samples.
- DC3KGJ (X) - Inconsistent in testing between samples.
- FWW7CQ (X) - Data for both samples are low.
- HRCUHU (X) - Inconsistent in testing between samples.
- JE76AK (X) - Data for both samples are high. Also inconsistent in testing within both samples.
- K992JZ (X) - Inconsistent in testing between samples, data for Sample SA75 are low.
- NXLF88 (X) - Data for both samples are low.
- QPJ8GW (X) - Inconsistent in testing between samples.
- TXQZTJ (X) - Data for both samples are high.
- X3LRK3 (X) - Data for both samples are high.

**Results by Methodology (as reported by laboratory)**

Test Methodology	Sample SA75 <i>Moscato</i>			Sample SA76 <i>White Blend</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Please specify method used	114.5	0.0	-3.5	121.0	0.0	-5.2	1	1
Ripper Method	116.1	6.0	-1.8	124.5	5.3	-1.7	23	31
Aeration Oxidation (AO) Method	118.7	4.4	0.8	127.6	4.4	1.4	13	19
Segmented Flow Analyzer	120.0	3.0	2.0	130.2	3.8	3.9	3	6
Colorimetric Analyzer	122.9	3.2	5.0	130.2	2.4	4.0	8	8
Flow Injection Analysis	118.8	4.8	0.8	127.9	4.8	1.7	6	6

Analysis 902

Total Sulfur Dioxide



## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 903

## Free Sulfur Dioxide

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
32QXQE		26.00	3.43	1.07	26.00	2.85	0.92
39VEHM		17.00	-5.57	-1.74	18.00	-5.15	-1.66
3EL9VT		26.30	3.73	1.17	27.50	4.35	1.40
3KBY4A		17.50	-5.07	-1.58	19.00	-4.15	-1.34
3PQAGE		22.50	-0.07	-0.02	22.50	-0.65	-0.21
4GPEWK		22.50	-0.07	-0.02	22.00	-1.15	-0.37
4UQTGA		22.50	-0.07	-0.02	23.00	-0.15	-0.05
6C9BK9		18.00	-4.57	-1.43	19.00	-4.15	-1.34
7HD4YJ		24.00	1.43	0.45	25.50	2.35	0.76
8CZPMD		26.50	3.93	1.23	27.00	3.85	1.24
8EKL7X		21.00	-1.57	-0.49	22.50	-0.65	-0.21
8TMT2Y		21.50	-1.07	-0.33	20.00	-3.15	-1.02
96RUWA		19.50	-3.07	-0.96	23.00	-0.15	-0.05
96YWTA		24.00	1.43	0.45	23.00	-0.15	-0.05
98JQL4		25.50	2.93	0.92	26.50	3.35	1.08
9YNY6M		21.00	-1.57	-0.49	25.00	1.85	0.60
ALFNHD		28.50	5.93	1.85	28.50	5.35	1.73
ALLXG7		23.00	0.43	0.14	24.00	0.85	0.27
BAJ3UU		25.00	2.43	0.76	27.00	3.85	1.24
BKHK2V		23.50	0.93	0.29	25.00	1.85	0.60
BM8WUA		19.50	-3.07	-0.96	19.50	-3.65	-1.18
BPRRBM		23.00	0.43	0.14	25.50	2.35	0.76
BRM6KU		27.50	4.93	1.54	26.00	2.85	0.92
C6NP8W		23.55	0.98	0.31	24.20	1.05	0.34
CDGQG3		19.50	-3.07	-0.96	20.50	-2.65	-0.86
CGWX3G		22.00	-0.57	-0.18	21.50	-1.65	-0.53
E2WVGT		23.50	0.93	0.29	26.50	3.35	1.08

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 903

## Free Sulfur Dioxide

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
E67E2E		26.00	3.43	1.07	26.50	3.35	1.08
E6AW3Y		18.50	-4.07	-1.27	18.50	-4.65	-1.50
E6BNZ8		20.90	-1.67	-0.52	20.65	-2.50	-0.81
EBKR79		23.00	0.43	0.14	22.50	-0.65	-0.21
EPKXM4		22.00	-0.57	-0.18	23.00	-0.15	-0.05
FVQLM7		21.50	-1.07	-0.33	22.00	-1.15	-0.37
H72D9X		22.00	-0.57	-0.18	22.00	-1.15	-0.37
HGDA2M		23.00	0.43	0.14	22.50	-0.65	-0.21
HMLFV9	X	9.00	-13.57	-4.23	10.00	-13.15	-4.24
JFG6XE		24.00	1.43	0.45	25.60	2.45	0.79
JVGCDA		23.50	0.93	0.29	22.50	-0.65	-0.21
K9ED4B		25.00	2.43	0.76	25.00	1.85	0.60
KMVPVP		21.00	-1.57	-0.49	20.50	-2.65	-0.86
LD6L62	X	13.50	-9.07	-2.83	25.00	1.85	0.60
LPDVPY		21.00	-1.57	-0.49	21.00	-2.15	-0.69
M9PBRX		25.00	2.43	0.76	23.50	0.35	0.11
NHLHKG		21.00	-1.57	-0.49	25.00	1.85	0.60
NHRKLM		26.50	3.93	1.23	26.00	2.85	0.92
NJM3L4		20.50	-2.07	-0.65	22.00	-1.15	-0.37
NL8KR8		20.00	-2.57	-0.80	19.00	-4.15	-1.34
NLCEHN		20.00	-2.57	-0.80	20.50	-2.65	-0.86
P9VB8A		26.00	3.43	1.07	25.00	1.85	0.60
PBL9ZA		24.00	1.43	0.45	25.50	2.35	0.76
PT4ZUK		24.00	1.43	0.45	24.00	0.85	0.27
Q4CMZH		22.50	-0.07	-0.02	23.50	0.35	0.11
Q7ARZK		18.50	-4.07	-1.27	20.00	-3.15	-1.02
QAQ26C		21.65	-0.92	-0.29	20.15	-3.00	-0.97

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 903

## Free Sulfur Dioxide

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
QK987Q		22.50	-0.07	-0.02	22.00	-1.15	-0.37
QL4X8Y	X	18.00	-4.57	-1.43	12.00	-11.15	-3.60
QZ2FRQ		28.50	5.93	1.85	28.50	5.35	1.73
R7GHB9		27.00	4.43	1.38	28.00	4.85	1.56
RGPJ37		18.00	-4.57	-1.43	18.50	-4.65	-1.50
T9TYF4		23.50	0.93	0.29	25.00	1.85	0.60
TPAPDX		20.00	-2.57	-0.80	20.00	-3.15	-1.02
TQ68DD		24.61	2.04	0.64	25.68	2.53	0.82
U3HBDM		22.50	-0.07	-0.02	22.65	-0.50	-0.16
UJ4EKA		25.60	3.03	0.95	27.50	4.35	1.40
VAD973		24.50	1.93	0.60	25.50	2.35	0.76
W8KKJZ	*	20.00	-2.57	-0.80	25.00	1.85	0.60
WV3AHN		30.00	7.43	2.32	29.00	5.85	1.89
XYJRLQ		21.00	-1.57	-0.49	20.50	-2.65	-0.86
Y67HHQ	X	21.00	-1.57	-0.49	12.00	-11.15	-3.60
Y8FDDB	*	26.00	3.43	1.07	23.00	-0.15	-0.05
Z3YEA2		21.50	-1.07	-0.33	22.00	-1.15	-0.37
ZEAGHY	*	13.50	-9.07	-2.83	16.00	-7.15	-2.31
ZGRQJJ	*	13.50	-9.07	-2.83	14.50	-8.65	-2.79

## Grand Means

22.567 mg/L

## Summary Statistics

23.151 mg/L

## Stnd Dev Btwn Labs

3.204 mg/L

3.100 mg/L

Statistics based on 69 of 73 reporting participants

Wines tested: SA75: Moscato; SA76: White Blend

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 903

## Free Sulfur Dioxide

**Comments on assigned Data Flags**

HMLFV9 (X) - Data for both samples are low. Possible Systematic Error.

LD6L62 (X) - Inconsistent in testing between samples, data for Sample SA75 are low. Also inconsistent in testing within Sample SA75.

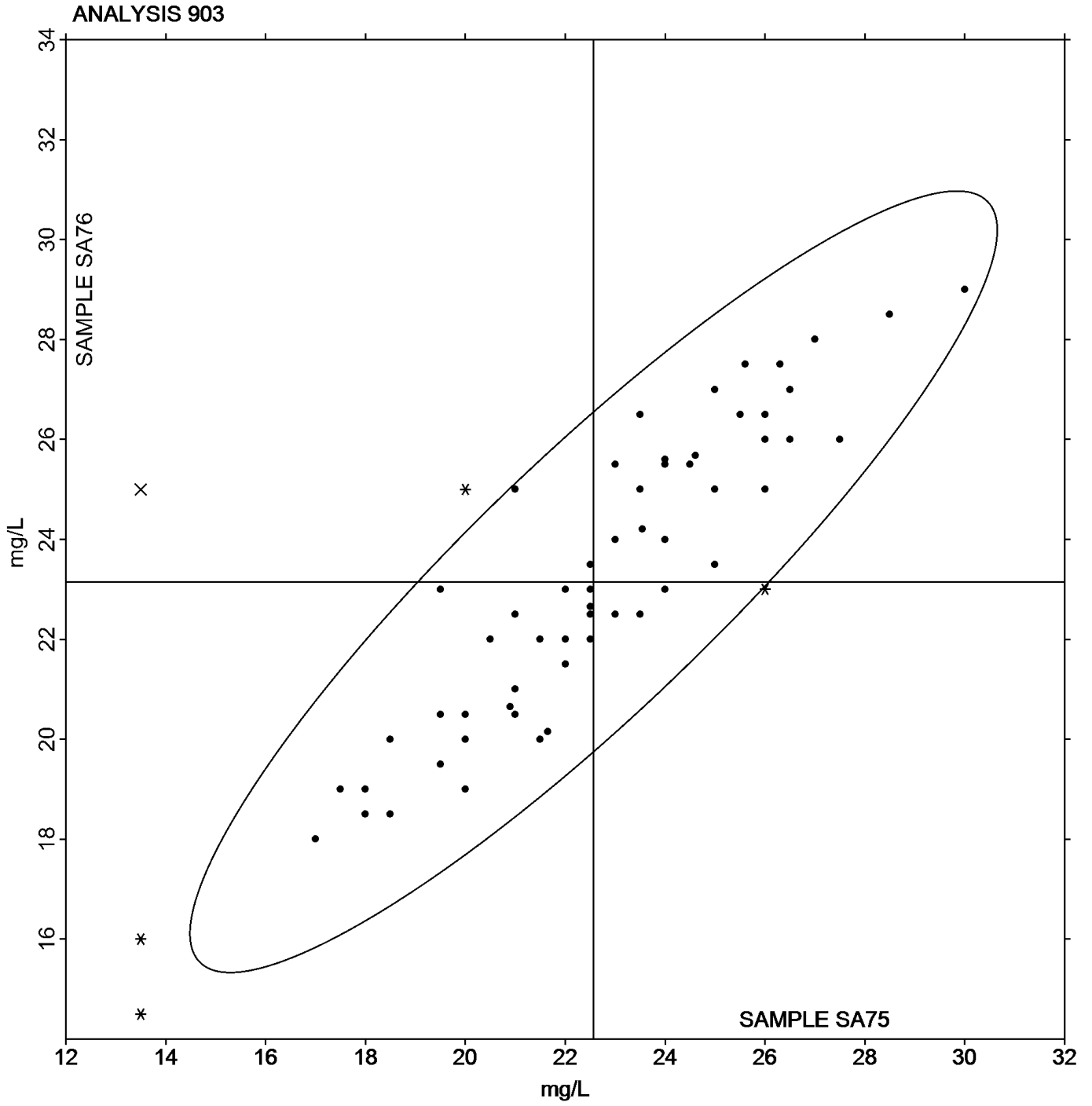
QL4X8Y (X) - Inconsistent in testing between samples, data for Sample SA76 are low.

Y67HHQ (X) - Inconsistent in testing between samples, data for Sample SA76 are low.

**Results by Methodology (as reported by laboratory)**

Test Methodology	Sample SA75 <i>Moscato</i>			Sample SA76 <i>White Blend</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Please specify method used	26.50	0.00	3.93	27.00	0.00	3.85	1	1
Ripper Method	23.67	2.88	1.10	23.74	2.82	0.58	20	21
Aeration Oxidation (AO) Method	22.51	2.29	-0.06	23.13	2.54	-0.02	26	32
Segmented Flow Analyzer	21.60	3.38	-0.97	23.10	4.02	-0.05	5	5
Colormetric Analyzer	23.44	3.74	0.87	24.58	3.13	1.42	8	8
Flow Injection Analysis	20.70	1.89	-1.87	20.73	1.65	-2.42	5	6

Analysis 903  
Free Sulfur Dioxide



## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 904

## Titratable Acidity

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
24LHER		7.075	0.128	0.81	6.825	0.036	0.22
3G88Q4		7.100	0.153	0.97	6.925	0.136	0.84
3H4G6E		7.005	0.058	0.37	6.910	0.121	0.75
472PQK	X	8.295	1.348	8.49	7.930	1.141	7.08
4QT4HB		7.100	0.153	0.97	6.850	0.061	0.38
6A238H		6.750	-0.197	-1.24	6.600	-0.189	-1.17
6HT77R		6.915	-0.032	-0.20	6.960	0.171	1.06
7HN32F		7.005	0.058	0.37	6.850	0.061	0.38
7Z9VLD		6.810	-0.137	-0.86	6.620	-0.169	-1.05
894YNE		6.750	-0.197	-1.24	6.600	-0.189	-1.17
9K99C8		6.900	-0.047	-0.29	6.700	-0.089	-0.55
9Z344L	*	7.335	0.388	2.45	7.075	0.286	1.77
AQBAY3		7.000	0.053	0.34	6.800	0.011	0.07
AVPM4V		7.100	0.153	0.97	6.900	0.111	0.69
B283XX		6.950	0.003	0.02	6.800	0.011	0.07
BJ6T8T		7.007	0.060	0.38	6.823	0.034	0.21
CDPVLQ		7.040	0.093	0.59	6.780	-0.009	-0.06
CFKEPC	*	7.100	0.153	0.97	7.150	0.361	2.24
CHBGWL	X	7.500	0.553	3.48	7.450	0.661	4.10
CU7B4U		6.800	-0.147	-0.92	6.600	-0.189	-1.17
CVHZCD		7.100	0.153	0.97	6.900	0.111	0.69
FBF7AX		7.000	0.053	0.34	6.800	0.011	0.07
FPYL3J		6.900	-0.047	-0.29	6.800	0.011	0.07
FWTKNX		7.100	0.153	0.97	6.900	0.111	0.69
G7MEL2		7.215	0.268	1.69	7.045	0.256	1.59
HDEUTY		6.675	-0.272	-1.71	6.635	-0.154	-0.96
HE64H8	X	7.800	0.853	5.37	7.600	0.811	5.03

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 904

## Titratable Acidity

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
HHNZ3Q		6.915	-0.032	-0.20	6.765	-0.024	-0.15
HWAR77		6.890	-0.057	-0.36	6.680	-0.109	-0.68
J4NNFR		7.149	0.202	1.27	7.002	0.212	1.32
J6HCXN		7.100	0.153	0.97	6.850	0.061	0.38
J7DY97		7.080	0.133	0.84	6.890	0.101	0.63
JM2VJE		6.800	-0.147	-0.92	6.750	-0.039	-0.24
JRG7WH		7.105	0.158	1.00	6.940	0.151	0.94
JTAUFD	X	7.750	0.803	5.06	7.600	0.811	5.03
K82LA9	X	5.995	-0.952	-5.99	5.770	-1.019	-6.32
KEJQ4Y		7.090	0.143	0.90	6.900	0.111	0.69
LWFTLH		6.775	-0.172	-1.08	6.750	-0.039	-0.24
M6AXRA		6.900	-0.047	-0.29	6.800	0.011	0.07
MLWLDL	*	6.983	0.036	0.23	6.573	-0.216	-1.34
NBAA8L		7.000	0.053	0.34	6.800	0.011	0.07
NDV3ZF		6.675	-0.272	-1.71	6.450	-0.339	-2.10
NDV6NY	*	6.500	-0.447	-2.81	6.300	-0.489	-3.04
NGCC68		6.800	-0.147	-0.92	6.500	-0.289	-1.79
P39EMT		7.050	0.103	0.65	6.880	0.091	0.56
P7PT8T		7.000	0.053	0.34	7.000	0.211	1.31
PB478F		6.870	-0.077	-0.48	6.870	0.081	0.50
PLNAEK		7.000	0.053	0.34	6.800	0.011	0.07
PQ4GZY		6.950	0.003	0.02	6.850	0.061	0.38
RRMUK9	X	7.620	0.673	4.24	7.220	0.431	2.67
TA7FTH		6.900	-0.047	-0.29	6.700	-0.089	-0.55
THRDZW		6.940	-0.007	-0.04	6.740	-0.049	-0.31
TMCYFY	X	7.600	0.653	4.11	7.250	0.461	2.86
UE3DBZ		7.000	0.053	0.34	6.900	0.111	0.69

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 904

## Titratable Acidity

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
ULJXA7		6.620	-0.327	-2.06	6.600	-0.189	-1.17
UU2UJR	X	7.500	0.553	3.48	7.350	0.561	3.48
VARFND		6.620	-0.327	-2.06	6.410	-0.379	-2.35
VDCTLZ		7.090	0.143	0.90	6.895	0.106	0.66
VMZWFL		6.955	0.008	0.05	6.795	0.006	0.04
W2VXT2		6.980	0.033	0.21	6.800	0.011	0.07
W4K9LF		7.000	0.053	0.34	6.900	0.111	0.69
WHKQCK		6.950	0.003	0.02	6.800	0.011	0.07
WL84HG		6.950	0.003	0.02	6.800	0.011	0.07
WQVL6M		6.750	-0.197	-1.24	6.600	-0.189	-1.17
WZ397Z		6.750	-0.197	-1.24	6.670	-0.119	-0.74
YHBBVH		6.930	-0.017	-0.10	6.855	0.066	0.41
YKW4MD	X	6.340	-0.607	-3.82	6.695	-0.094	-0.58
YML7VL		6.650	-0.297	-1.87	6.550	-0.239	-1.48
ZDVZGE		7.080	0.133	0.84	7.035	0.246	1.53
ZEJMMM		6.900	-0.047	-0.29	6.700	-0.089	-0.55
ZJ48YJ		7.150	0.203	1.28	6.900	0.111	0.69
ZYXCKZ		7.050	0.103	0.65	6.865	0.076	0.47
ZZTUKF		6.950	0.003	0.02	6.795	0.006	0.04

## Grand Means

6.9465 g/L as tartaric acid

## Summary Statistics

6.7892 g/L as tartaric acid

## Stnd Dev Btwn Labs

0.1588 g/L as tartaric acid

0.1611 g/L as tartaric acid

Statistics based on 64 of 73 reporting participants

Wines tested: SA75: Moscato; SA76: White Blend

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 904

## Titratable Acidity

**Comments on assigned Data Flags**

472PQK (X) - Data for both samples are high. Also inconsistent in testing within Sample SA75.

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

HE64H8 (X) - Data for both samples are high.

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

K82LA9 (X) - Data for both samples are low.

RRMUK9 (X) - Inconsistent in testing between samples, data for Sample SA75 are high.

TMCYFY (X) - Data for both samples are high. Also inconsistent in testing within Sample SA75.

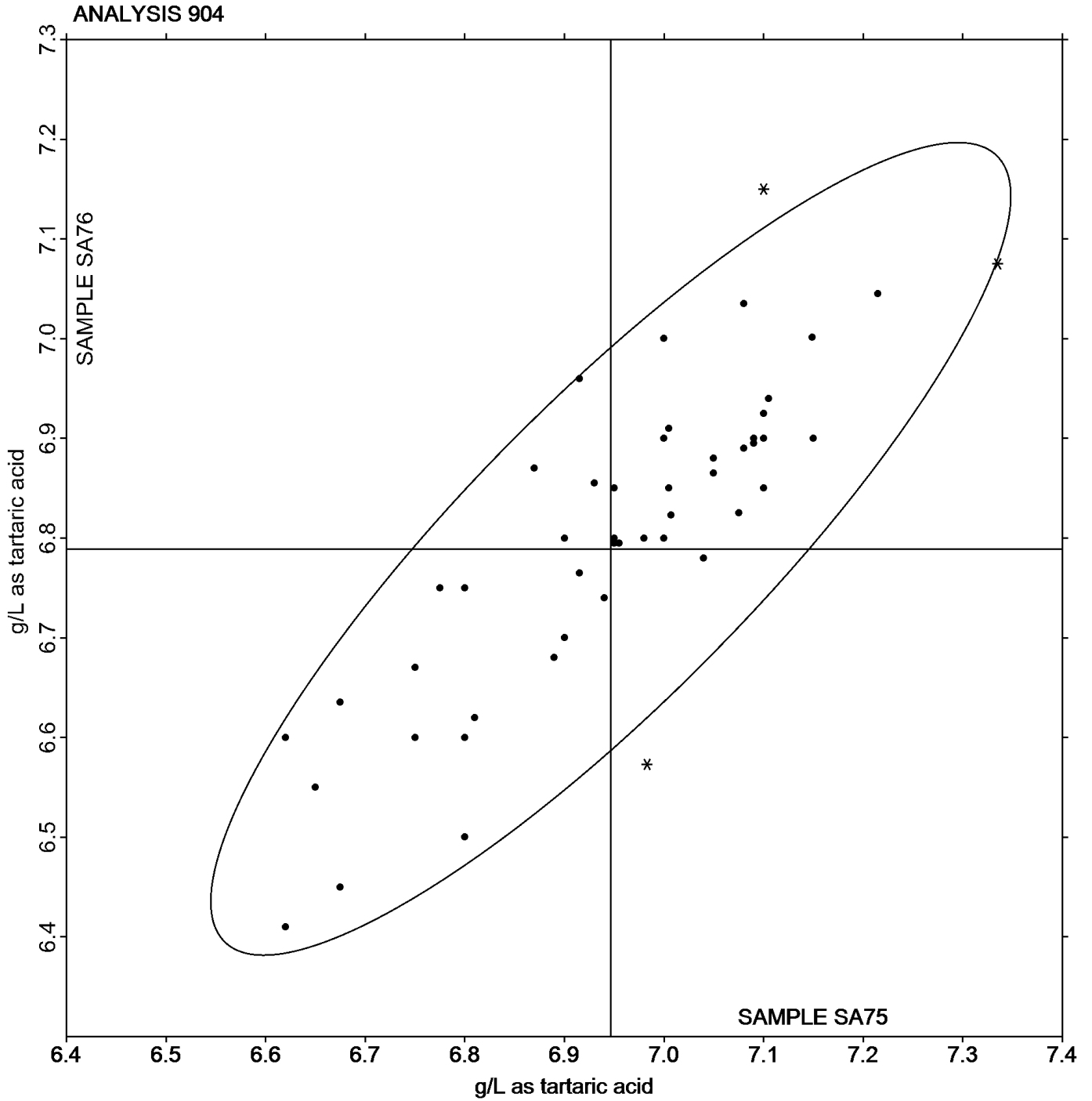
UU2UJR (X) - Data for both samples are high. Possible Systematic Error.

YKW4MD (X) - Inconsistent in testing between samples, data for Sample SA75 are low. Also inconsistent in testing within Sample SA75.

**Results by Methodology (as reported by laboratory)**

Test Methodology	Sample SA75 <i>Moscato</i>			Sample SA76 <i>White Blend</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Autotitration	6.966	0.145	0.020	6.812	0.133	0.023	35	39
Manual Titration	6.915	0.153	-0.031	6.759	0.156	-0.030	19	25
FTIR	6.908	0.086	-0.039	6.758	0.105	-0.031	6	8

Analysis 904  
Titratable Acidity



**ASEV-CTS Wine Industry Interlaboratory Testing Program**  
**Analysis 905**  
**Volatile Acidity**

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WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2J3FG8		0.2550	-0.0147	-0.24	0.2300	-0.0417	-0.66
2M2M36		0.3000	0.0303	0.50	0.2900	0.0183	0.29
2MM4FM	X	0.4550	0.1853	3.08	0.3150	0.0433	0.69
3BZNN4		0.1650	-0.1047	-1.74	0.1850	-0.0867	-1.38
3E2KFJ		0.1450	-0.1247	-2.08	0.1200	-0.1517	-2.41
3RA3W9		0.2450	-0.0247	-0.41	0.2400	-0.0317	-0.50
3U2YP9		0.2875	0.0178	0.30	0.2950	0.0233	0.37
3UUXCL		0.2500	-0.0197	-0.33	0.2650	-0.0067	-0.11
3WEWJP		0.1850	-0.0847	-1.41	0.1650	-0.1067	-1.69
46W2DF		0.2800	0.0103	0.17	0.2950	0.0233	0.37
4BMA3F	*	0.3800	0.1103	1.84	0.4200	0.1483	2.35
4LZ44F		0.2200	-0.0497	-0.83	0.2300	-0.0417	-0.66
4R4YV3		0.3100	0.0403	0.67	0.2800	0.0083	0.13
6CAXM3		0.1850	-0.0847	-1.41	0.2100	-0.0617	-0.98
6ER9B7		0.2350	-0.0347	-0.58	0.2400	-0.0317	-0.50
6H9HFW		0.3350	0.0653	1.09	0.3350	0.0633	1.00
6KYFC4		0.2500	-0.0197	-0.33	0.2300	-0.0417	-0.66
7TW4P8		0.3000	0.0303	0.50	0.2900	0.0183	0.29
87PNEN	*	0.1675	-0.1022	-1.70	0.2075	-0.0642	-1.02
9EM7CH		0.2750	0.0053	0.09	0.2850	0.0133	0.21
9YMVLK		0.2400	-0.0297	-0.49	0.2600	-0.0117	-0.19
9ZJELZ		0.2800	0.0103	0.17	0.2800	0.0083	0.13
ACQXX8		0.2500	-0.0197	-0.33	0.2500	-0.0217	-0.34
BG33UL		0.2600	-0.0097	-0.16	0.2700	-0.0017	-0.03
CAWL3D		0.2100	-0.0597	-0.99	0.2100	-0.0617	-0.98
CN9AM8		0.2800	0.0103	0.17	0.2600	-0.0117	-0.19
CU2T4B		0.2850	0.0153	0.26	0.2900	0.0183	0.29

**ASEV-CTS Wine Industry Interlaboratory Testing Program**  
**Analysis 905**  
**Volatile Acidity**

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WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
D3UTAA		0.3650	0.0953	1.59	0.3750	0.1033	1.64
DH9PFB	X	0.3525	0.0828	1.38	0.4650	0.1933	3.07
EQDNFJ		0.2750	0.0053	0.09	0.2950	0.0233	0.37
G8RAYD		0.4200	0.1503	2.50	0.4200	0.1483	2.35
GGJ2FX		0.2200	-0.0497	-0.83	0.2200	-0.0517	-0.82
GHEPVM		0.2520	-0.0177	-0.29	0.2880	0.0163	0.26
HB9F2Z		0.2750	0.0053	0.09	0.2600	-0.0117	-0.19
HRYRVZ		0.2050	-0.0647	-1.08	0.2250	-0.0467	-0.74
HRZUED		0.2600	-0.0097	-0.16	0.2550	-0.0167	-0.27
J48CY9		0.2450	-0.0247	-0.41	0.2400	-0.0317	-0.50
J6WYW4		0.1450	-0.1247	-2.08	0.1600	-0.1117	-1.77
JYUJG		0.3000	0.0303	0.50	0.3150	0.0433	0.69
JMJLTY		0.3050	0.0353	0.59	0.3000	0.0283	0.45
JZLRNC	X	0.3600	0.0903	1.50	0.2900	0.0183	0.29
JZMQJ7		0.3050	0.0353	0.59	0.3000	0.0283	0.45
KFJJ7D		0.2250	-0.0447	-0.74	0.2300	-0.0417	-0.66
LKH7WY		0.3200	0.0503	0.84	0.3050	0.0333	0.53
LZWBCE		0.3850	0.1153	1.92	0.3850	0.1133	1.80
MGXLL4		0.2500	-0.0197	-0.33	0.2450	-0.0267	-0.42
MLDWY8		0.3100	0.0403	0.67	0.3050	0.0333	0.53
N97GF9		0.3300	0.0603	1.00	0.3750	0.1033	1.64
NDGE4V		0.3000	0.0303	0.50	0.3000	0.0283	0.45
NRHPQM		0.4119	0.1422	2.37	0.4299	0.1582	2.51
NWVCFK		0.2800	0.0103	0.17	0.2900	0.0183	0.29
P3QG8M		0.2350	-0.0347	-0.58	0.2400	-0.0317	-0.50
PZ6LVF	X	0.3200	0.0503	0.84	0.4050	0.1333	2.12
QD78LN		0.2400	-0.0297	-0.49	0.2500	-0.0217	-0.34

**ASEV-CTS Wine Industry Interlaboratory Testing Program**  
**Analysis 905**  
**Volatile Acidity**

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
QEYNFR	X	0.2700	0.0003	0.01	0.3900	0.1183	1.88
QQEFD3		0.2500	-0.0197	-0.33	0.2700	-0.0017	-0.03
QY6XYX		0.3150	0.0453	0.75	0.3200	0.0483	0.77
QZYLHT		0.2100	-0.0597	-0.99	0.2100	-0.0617	-0.98
TGDYNF	*	0.3405	0.0708	1.18	0.2940	0.0223	0.35
TJ6UDA		0.3450	0.0753	1.25	0.3500	0.0783	1.24
TWGU8M		0.2200	-0.0497	-0.83	0.1850	-0.0867	-1.38
U9MG3K		0.2400	-0.0297	-0.49	0.2250	-0.0467	-0.74
UDRDDK		0.2550	-0.0147	-0.24	0.2550	-0.0167	-0.27
VNFYLU		0.2400	-0.0297	-0.49	0.2400	-0.0317	-0.50
WP2U99		0.4000	0.1303	2.17	0.4050	0.1333	2.12
WXHNTX	X	6.0000	5.7303	95.37	6.0000	5.7283	90.90
Y2THJE		0.2400	-0.0297	-0.49	0.2350	-0.0367	-0.58
YF2ARW		0.2700	0.0003	0.01	0.2650	-0.0067	-0.11
Z86MHC		0.2400	-0.0297	-0.49	0.2000	-0.0717	-1.14
ZRFZ8Y		0.2600	-0.0097	-0.16	0.2950	0.0233	0.37

Grand Means		Summary Statistics	
	0.26968 g/L as acetic acid		0.27171 g/L as acetic acid
Std Dev Btwn Labs			0.06302 g/L as acetic acid
	0.06008 g/L as acetic acid		
<b>Statistics based on 64 of 70 reporting participants</b>			

**Wines tested:** SA75: Moscato; SA76: White Blend

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 905

## Volatile Acidity

**Comments on assigned Data Flags**

2MM4FM (X) - Inconsistent in testing between samples, data for Sample SA75 are high.

DH9PFB (X) - Inconsistent in testing between samples, data for Sample SA76 are high. Also inconsistent in testing within Sample SA76.

JZLRNC (X) - Inconsistent in testing between samples.

PZ6LVF (X) - Inconsistent in testing between samples. Also inconsistent in testing within Sample SA76.

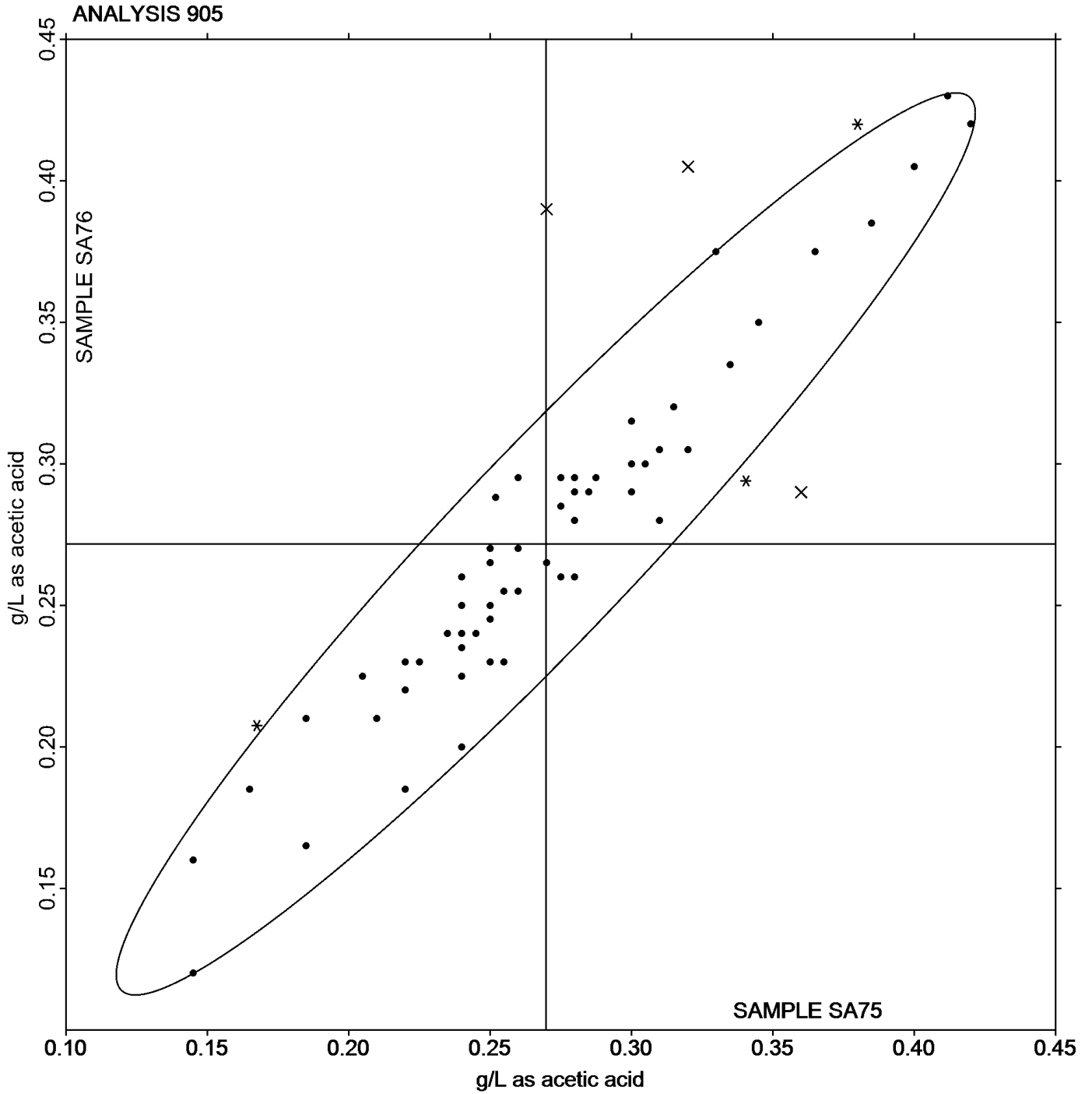
QEYNFR (X) - Inconsistent in testing between samples.

WXHNTX (X) - Extreme data.

**Results by Methodology (as reported by laboratory)**

Test Methodology	Sample SA75 <i>Moscato</i>			Sample SA76 <i>White Blend</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Please specify method	0.2575	0.0318	-0.0122	0.2500	0.0141	-0.0217	2	3
Cash Still method	0.2990	0.0627	0.0293	0.3059	0.0656	0.0342	21	27
Enzymatic method	0.2324	0.0374	-0.0373	0.2371	0.0364	-0.0346	19	20
HPLC	0.3850	0.0000	0.1153	0.3850	0.0000	0.1133	1	1
GC	0.2460	0.0085	-0.0237	0.2565	0.0445	-0.0152	2	2
Seg. Flow / Colorimetric Analyzer	0.2513	0.0472	-0.0184	0.2431	0.0530	-0.0286	8	9
FTIR	0.2844	0.0474	0.0147	0.2744	0.0580	0.0027	8	8

Analysis 905  
Volatile Acidity



**ASEV-CTS Wine Industry Interlaboratory Testing Program**  
**Analysis 906**  
**Specific Gravity**

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WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
22G8KR		1.026	0.000	-0.21	1.025	0.000	-0.23
22JWRB		1.027	0.001	1.09	1.026	0.001	1.16
3DWX3F		1.027	0.000	0.35	1.025	0.000	0.30
4F9WHZ		1.027	0.000	0.43	1.025	0.000	0.41
4LEJ3P		1.027	0.000	0.28	1.025	0.000	0.30
6AZY6E		1.027	0.000	0.35	1.025	0.000	0.43
6BUMMA		1.027	0.001	0.69	1.025	0.000	0.43
8GB4LH	X	1.026	0.000	-0.24	1.024	-0.001	-1.26
8HUZZ4		1.026	0.000	0.17	1.025	0.000	0.18
8JJCWN		1.027	0.000	0.35	1.025	0.000	0.31
8L9MP2		1.027	0.000	0.32	1.025	0.000	0.32
8WG9B2		1.027	0.000	0.32	1.025	0.000	0.30
9AT6EA		1.025	-0.001	-1.65	1.023	-0.002	-1.83
9Q9AE2		1.025	-0.001	-1.65	1.024	-0.001	-1.53
9TWN6		1.027	0.000	0.37	1.025	0.000	0.39
9YM68P		1.026	0.000	-0.22	1.025	0.000	-0.25
AFRTCM	*	1.025	-0.002	-1.77	1.023	-0.002	-2.02
APFDP9	X	6.805	5.779	6,595.31	6.505	5.480	6,691.42
B283ZJ		1.025	-0.001	-1.31	1.024	-0.001	-1.28
BB98TE		1.027	0.000	0.31	1.025	0.000	0.27
C7Y2YU		1.027	0.001	1.16	1.026	0.001	1.05
C9K3PA	X	1.030	0.004	4.11	1.024	-0.001	-1.53
CPT9HY		1.028	0.002	1.96	1.027	0.002	2.03
CQ9K6A	*	1.024	-0.002	-2.62	1.023	-0.002	-2.38
DDQVJ6	*	1.024	-0.002	-2.62	1.023	-0.002	-2.38
DDTAVB		1.027	0.000	0.36	1.025	0.000	0.33
DX6AAZ		1.027	0.000	0.45	1.025	0.000	0.47

**ASEV-CTS Wine Industry Interlaboratory Testing Program**  
**Analysis 906**  
**Specific Gravity**

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WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
E9FTVL		1.025	-0.002	-1.88	1.023	-0.002	-2.08
ECW2GY		1.027	0.000	0.35	1.025	0.000	0.30
EMAX6W		1.027	0.000	0.39	1.025	0.000	0.37
GDFFKL		1.027	0.001	1.26	1.026	0.001	1.33
GQ4YAP	X	1.026	0.000	0.12	1.026	0.001	0.67
H24EQ2	X	1.028	0.001	1.68	1.027	0.002	2.21
HLPK6V		1.027	0.000	0.31	1.025	0.000	0.29
JDB8QW		1.027	0.000	0.35	1.025	0.000	0.24
JU2LXX		1.027	0.000	0.29	1.025	0.000	0.24
KNN9NX		1.027	0.000	0.35	1.025	0.000	0.37
LGMD44	*	1.028	0.001	1.60	1.027	0.002	1.89
LLWKG2	X	1.025	-0.001	-1.17	1.027	0.002	2.09
LNMMNB		1.027	0.001	0.69	1.026	0.001	0.67
N2MBLM		1.027	0.000	0.38	1.025	0.000	0.35
PLRGXF		1.027	0.000	0.41	1.025	0.000	0.39
PW8Z9J	X	1.029	0.002	2.51	1.026	0.001	1.28
PYVETM		1.027	0.000	0.40	1.025	0.000	0.38
QN6GVE	*	1.026	0.000	-0.34	1.025	0.000	0.06
R4ZHLY		1.027	0.000	0.43	1.025	0.000	0.39
RHY4VU		1.026	0.000	-0.05	1.025	0.000	-0.18
RLEK3D	X	1.027	0.001	0.80	1.025	0.000	0.06
RN6JJX	X	1.028	0.001	1.37	1.025	0.000	-0.31
RNZ7TF		1.026	0.000	0.06	1.025	0.000	0.06
U7DHW		1.026	0.000	-0.34	1.025	0.000	-0.55
UJXCLP	X	1.026	0.000	-0.34	1.024	-0.001	-1.16
VE7WWM	X	1.025	-0.001	-1.25	1.025	0.000	-0.55
VXHQZA		1.027	0.000	0.53	1.025	0.000	0.56

**ASEV-CTS Wine Industry Interlaboratory Testing Program**  
**Analysis 906**  
**Specific Gravity**

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
WBGRTH		1.025	-0.002	-1.74	1.023	-0.002	-1.83
WNNEQZ	*	1.025	-0.001	-1.48	1.024	-0.001	-1.16
XJBLLT		1.027	0.000	0.35	1.025	0.000	0.30
XZ368N		1.027	0.000	0.33	1.025	0.000	0.29
XZYM84		1.027	0.000	0.35	1.025	0.000	0.43
Z8Q4U9		1.026	0.000	0.12	1.025	0.000	0.11

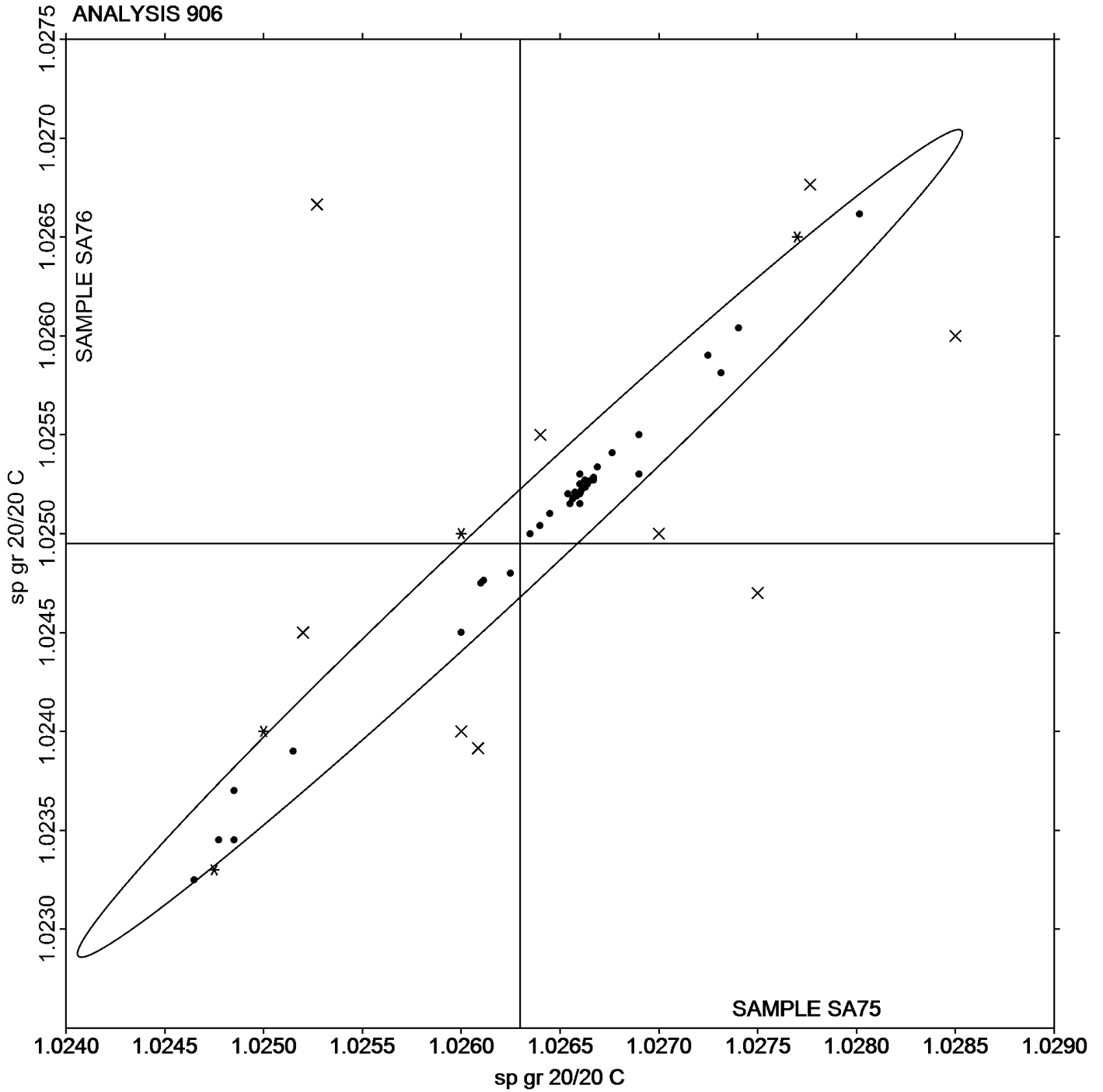
Grand Means		Summary Statistics	
1.0263	sp gr 20/20 C	1.0250	sp gr 20/20 C
Std Dev Btwn Labs		0.0008	sp gr 20/20 C
0.0009	sp gr 20/20 C	<b>Statistics based on 49 of 60 reporting participants</b>	

**Wines tested:** SA75: Moscato; SA76: White Blend

**Comments on assigned Data Flags**

- 8GB4LH (X) - Inconsistent in testing between samples. Also inconsistent in testing within Sample SA75.
- APFDP9 (X) - Extreme data.
- C9K3PA (X) - Inconsistent in testing between samples, data for Sample SA76 are high.
- GQ4YAP (X) - Inconsistent in testing between samples. Also inconsistent in testing within Sample SA75.
- H24EQ2 (X) - Inconsistent in testing between samples.
- LLWKG2 (X) - Inconsistent in testing between samples.
- PW8Z9J (X) - Inconsistent in testing between samples.
- RLEK3D (X) - Inconsistent in testing between samples.
- RN6JJX (X) - Inconsistent in testing between samples.
- UJXCLP (X) - Inconsistent in testing between samples.
- VE7WWM (X) - Inconsistent in testing between samples. Also inconsistent in testing within Sample SA76.

Analysis 906  
Specific Gravity



## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 907

## pH

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2XDFCR		3.130	0.047	1.19	3.120	0.016	0.42
33TZXC		3.010	-0.073	-1.88	3.050	-0.054	-1.44
3MVCM8		3.055	-0.028	-0.73	3.070	-0.034	-0.90
3NMAYK		3.050	-0.033	-0.86	3.100	-0.004	-0.11
3QCLRY		3.160	0.077	1.96	3.160	0.056	1.48
42WQJ2		3.085	0.002	0.04	3.110	0.006	0.16
43QE3W		3.160	0.077	1.96	3.180	0.076	2.01
4FTMKT		3.120	0.037	0.94	3.130	0.026	0.69
4UAZVK		3.040	-0.043	-1.11	3.070	-0.034	-0.90
68RRZZ		3.010	-0.073	-1.88	3.020	-0.084	-2.23
8P497Q	X	2.970	-0.113	-2.91	3.030	-0.074	-1.97
8W8ZQG		3.125	0.042	1.07	3.145	0.041	1.09
96XNU4		3.080	-0.003	-0.09	3.115	0.011	0.29
9KPV2W		3.093	0.009	0.23	3.118	0.013	0.36
9QUG39		3.100	0.017	0.42	3.120	0.016	0.42
AF4LUH	X	3.465	0.382	9.78	3.485	0.381	10.11
CM4WPK		3.155	0.072	1.83	3.180	0.076	2.01
DBLUHD		3.060	-0.023	-0.60	3.080	-0.024	-0.64
DF3XUP		3.095	0.012	0.30	3.130	0.026	0.69
DT3F74		3.090	0.007	0.17	3.110	0.006	0.16
F2U6R3	*	2.980	-0.103	-2.65	3.000	-0.104	-2.76
FGK2		3.060	-0.023	-0.60	3.100	-0.004	-0.11
FYNHEX		3.095	0.012	0.30	3.120	0.016	0.42
G7ZJ8Z		3.025	-0.058	-1.50	3.060	-0.044	-1.17
HBNJPZ		3.100	0.017	0.42	3.120	0.016	0.42
HJ34PW		3.095	0.012	0.30	3.105	0.001	0.02
HYYNL7	*	3.000	-0.083	-2.14	3.050	-0.054	-1.44

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 907

## pH

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
JAVNJJ		3.100	0.017	0.42	3.120	0.016	0.42
JTMA9Z	*	3.000	-0.083	-2.14	3.010	-0.094	-2.50
JUEA4Q		3.110	0.027	0.68	3.130	0.026	0.69
JXVHQ6	*	3.130	0.047	1.19	3.110	0.006	0.16
JYNBJ3		3.120	0.037	0.94	3.135	0.031	0.82
KLJHJ3		3.095	0.012	0.30	3.120	0.016	0.42
LA7XGL		3.095	0.011	0.28	3.124	0.019	0.51
LGAJRA	X	2.900	-0.183	-4.70	2.970	-0.134	-3.56
M346NH		3.090	0.007	0.17	3.105	0.001	0.02
M4TGGW		3.070	-0.013	-0.34	3.090	-0.014	-0.37
M7GREG		3.100	0.017	0.42	3.120	0.016	0.42
M7JDAW		3.085	0.002	0.04	3.100	-0.004	-0.11
MAWEV3		3.080	-0.003	-0.09	3.120	0.016	0.42
MDHX4R		3.025	-0.058	-1.50	3.030	-0.074	-1.97
MPXF2V		3.075	-0.008	-0.22	3.095	-0.009	-0.24
MU9FAF	X	3.095	0.012	0.30	3.185	0.081	2.15
N6KNA8		3.060	-0.023	-0.60	3.075	-0.029	-0.77
NM397W		3.110	0.027	0.68	3.130	0.026	0.69
P3MWDR		3.110	0.027	0.68	3.150	0.046	1.22
PT2LCD	*	3.130	0.047	1.19	3.110	0.006	0.16
PXJTUK	X	2.935	-0.148	-3.81	2.950	-0.154	-4.09
Q86QBJ		3.055	-0.028	-0.73	3.070	-0.034	-0.90
QJCFUZ	X	3.280	0.197	5.04	3.285	0.181	4.80
RFRVH4		3.105	0.022	0.55	3.115	0.011	0.29
RV4RWH	*	3.090	0.007	0.17	3.150	0.046	1.22
T4FTPJ		3.100	0.017	0.42	3.120	0.016	0.42
T8QW7K		3.090	0.007	0.17	3.110	0.006	0.16

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 907

## pH

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
T9RLXW		3.095	0.012	0.30	3.120	0.016	0.42
TBCHHG		3.120	0.037	0.94	3.135	0.031	0.82
TRZB4K		3.090	0.007	0.17	3.110	0.006	0.16
U63L9Z		3.035	-0.048	-1.24	3.070	-0.034	-0.90
UKJZNY		3.050	-0.033	-0.86	3.075	-0.029	-0.77
VB7NQR		3.070	-0.013	-0.34	3.090	-0.014	-0.37
VFK2VK		3.085	0.002	0.04	3.105	0.001	0.02
VL8TX8		3.012	-0.071	-1.83	3.031	-0.074	-1.95
VQZMMF		3.110	0.027	0.68	3.125	0.021	0.55
W3A34Q		3.085	0.002	0.04	3.130	0.026	0.69
W9J2YP		3.080	-0.003	-0.09	3.095	-0.009	-0.24
WTWQEZ	X	3.410	0.327	8.37	3.430	0.326	8.65
XF6EM9		3.115	0.032	0.81	3.130	0.026	0.69
XUQ7RN		3.105	0.022	0.55	3.105	0.001	0.02
Y9BHTJ		3.110	0.027	0.68	3.140	0.036	0.95
Z3XY6B		3.075	-0.008	-0.22	3.095	-0.009	-0.24
ZKH4T9		3.060	-0.023	-0.60	3.050	-0.054	-1.44
ZYGRJW		3.130	0.047	1.19	3.160	0.056	1.48

## Grand Means

3.0834 pH

## Summary Statistics

3.1041 pH

## Std Dev Btwn Labs

0.0390 pH

0.0377 pH

Statistics based on 65 of 72 reporting participants

Wines tested: SA75: Moscato; SA76: White Blend

Analysis 907

pH

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**Comments on assigned Data Flags**

8P497Q (X) - Inconsistent in testing between samples, data for Sample SA75 are low.

AF4LUH (X) - Extreme data.

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

MU9FAF (X) - Inconsistent in testing between samples.

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

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

WTWQEZ (X) - Extreme data.



## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 908

## Residual Sugar

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
3FDYPU		73.00	-5.58	-0.91	75.60	-1.87	-0.33
4A43LJ		77.55	-1.03	-0.17	76.60	-0.87	-0.15
64TFX9		72.25	-6.33	-1.03	72.10	-5.37	-0.94
68EZA6		77.40	-1.18	-0.19	75.80	-1.67	-0.29
6XPHJ3		71.00	-7.58	-1.23	66.00	-11.47	-2.01
7ZJW9C		65.36	-13.22	-2.15	65.36	-12.11	-2.12
8PMY8X		85.60	7.02	1.14	82.00	4.53	0.79
9HL7DU		79.00	0.42	0.07	77.00	-0.47	-0.08
AQTNJC	X	125.00	46.42	7.54	275.00	197.53	34.63
BCJ2HM	*	72.60	-5.98	-0.97	78.95	1.48	0.26
FFBELE		92.00	13.42	2.18	92.00	14.53	2.55
FV2ZYY		81.80	3.22	0.52	80.30	2.83	0.50
G3XRR8		80.54	1.96	0.32	79.62	2.15	0.38
KFVVT4		85.00	6.42	1.04	82.00	4.53	0.79
KK9MXB	X	82.00	3.42	0.56	95.40	17.93	3.14
LBHGFX		81.50	2.92	0.47	80.00	2.53	0.44
M72HEN		85.67	7.09	1.15	80.40	2.93	0.51
PQTL3Z		80.95	2.37	0.39	79.60	2.13	0.37
T2A92J		81.88	3.30	0.54	80.63	3.15	0.55
TN4KYU		71.99	-6.59	-1.07	71.47	-6.00	-1.05
VPHRPL		81.10	2.52	0.41	78.68	1.20	0.21
YM83GE		77.45	-1.13	-0.18	76.55	-0.92	-0.16
ZZPXRQ		76.50	-2.08	-0.34	76.25	-1.22	-0.21

## ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 908  
Residual Sugar

	Summary Statistics	
<b>Grand Means</b>	78.577 g/L	77.471 g/L
<b>Std Dev Btwn Labs</b>	6.154 g/L	5.703 g/L
<b>Statistics based on 21 of 23 reporting participants</b>		

**Wines tested:** SA75: Moscato; SA76: White Blend

**Comments on assigned Data Flags**

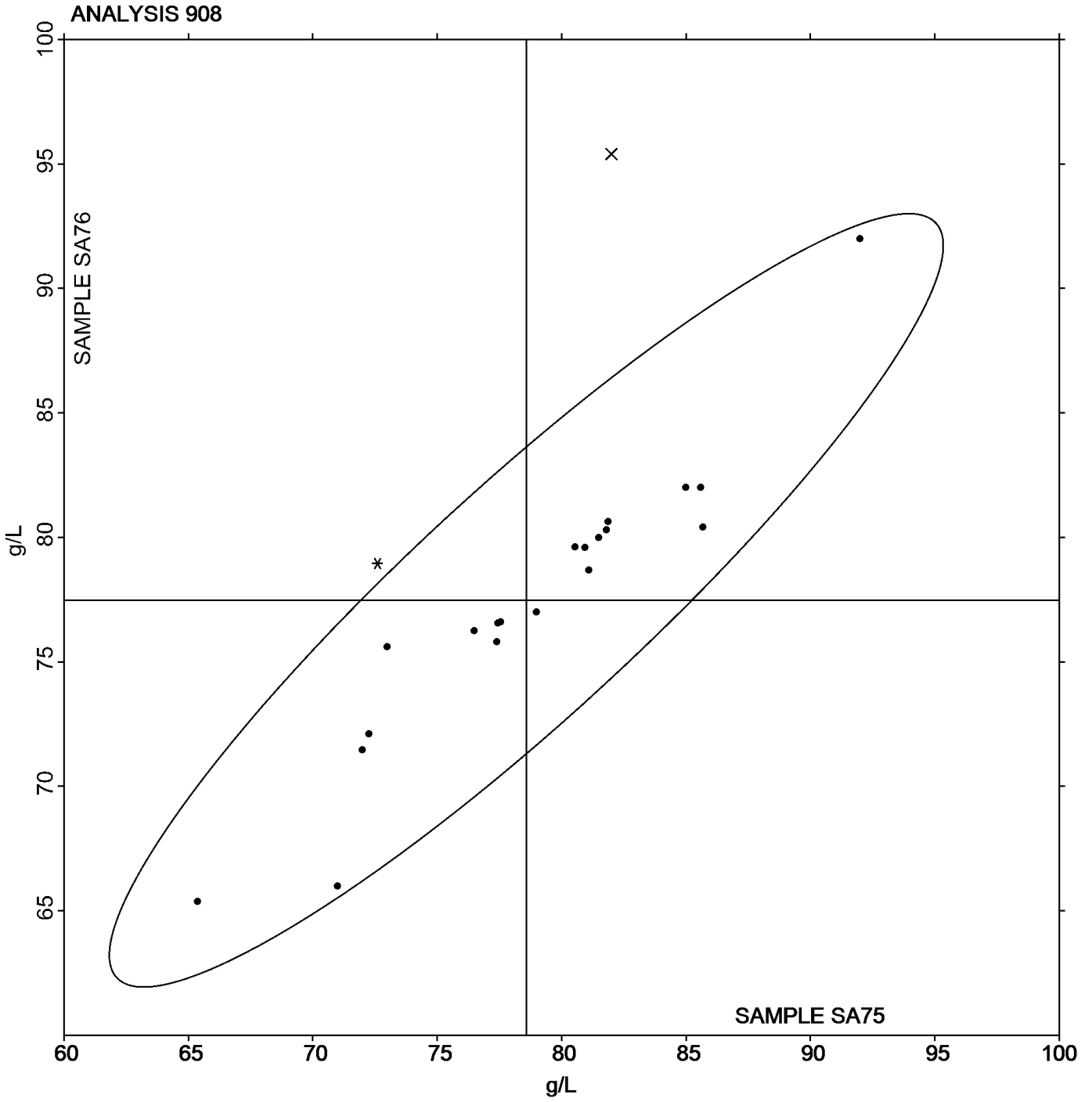
AQTNJC (X) - Extreme data.

KK9MXB (X) - Inconsistent in testing between samples, data for Sample SA76 are high.

**Results by Methodology (as reported by laboratory)**

Test Methodology	Sample SA75 <i>Moscato</i>			Sample SA76 <i>White Blend</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
Cu Reduction Method	78.36	7.41	-0.21	76.77	7.12	-0.71	12	15
HPLC	81.88	0.00	3.30	80.63	0.00	3.15	1	1
Segmented Flow	81.23	5.34	2.65	79.28	3.85	1.80	2	2
FTIR	80.21	1.85	1.63	79.03	1.65	1.56	4	4
Other _____	71.99	0.00	-6.59	71.47	0.00	-6.00	1	1

Analysis 908  
Residual Sugar



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

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WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2HNLLM	X	2.820	1.235	9.75	2.720	1.213	9.11
2MXTYK		1.380	-0.205	-1.62	1.235	-0.272	-2.04
43MJ47		1.560	-0.025	-0.20	1.530	0.023	0.17
4ANNA4		1.700	0.115	0.91	1.515	0.008	0.06
63GG87		1.669	0.083	0.66	1.586	0.079	0.59
64ER2N	X	3.237	1.652	13.04	3.166	1.659	12.45
6K6BTA		1.705	0.120	0.95	1.615	0.108	0.81
87X24Q		1.665	0.080	0.63	1.540	0.033	0.25
9CR6CF		1.575	-0.010	-0.08	1.515	0.008	0.06
9HZFKA		1.659	0.073	0.58	1.599	0.092	0.69
9K2P4P		1.486	-0.099	-0.78	1.464	-0.043	-0.33
A6UP9T		1.445	-0.140	-1.11	1.430	-0.077	-0.58
ALJLGF		1.340	-0.245	-1.94	1.250	-0.257	-1.93
CU2499		1.550	-0.035	-0.28	1.650	0.143	1.07
D4RKEA		1.645	0.060	0.47	1.575	0.068	0.51
DHNDRH	*	1.600	0.015	0.12	1.305	-0.202	-1.52
E9Y8A6		1.865	0.280	2.21	1.775	0.268	2.01
EHHDEV		1.760	0.174	1.38	1.666	0.158	1.19
FLZL4R		1.285	-0.300	-2.37	1.290	-0.217	-1.63
FZWEG2		1.572	-0.013	-0.10	1.334	-0.173	-1.30
GGL9YY		1.870	0.285	2.25	1.780	0.273	2.05
GWDU2Y		1.550	-0.035	-0.28	1.535	0.028	0.21
HFPYKM	X	2.415	0.830	6.55	2.351	0.844	6.33
JH7DEU		1.700	0.115	0.91	1.650	0.143	1.07
KBWTE3		1.485	-0.100	-0.79	1.447	-0.061	-0.46
KG7NHC		1.540	-0.045	-0.36	1.470	-0.037	-0.28
KT2JQK		1.440	-0.145	-1.15	1.400	-0.107	-0.81

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

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WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
LLXUN7		1.565	-0.020	-0.16	1.495	-0.012	-0.09
MJQZ6R		1.639	0.054	0.43	1.591	0.083	0.62
NPTWFY		1.800	0.215	1.70	1.730	0.223	1.67
PLXY66		1.525	-0.060	-0.47	1.490	-0.017	-0.13
QDCRL9	X	1.225	-0.360	-2.84	1.420	-0.087	-0.66
QE4YHQ		1.470	-0.115	-0.91	1.420	-0.087	-0.66
QUZMUV		1.669	0.083	0.66	1.596	0.089	0.67
R3WLRN	X	2.065	0.480	3.79	1.875	0.368	2.76
R698UW		1.560	-0.025	-0.20	1.490	-0.017	-0.13
R6DJJE		1.540	-0.045	-0.36	1.510	0.003	0.02
RC8TRX		1.495	-0.090	-0.71	1.400	-0.107	-0.81
RNLEZ4	X	2.425	0.840	6.63	2.330	0.823	6.18
RTZR6X		1.659	0.073	0.58	1.642	0.134	1.01
UAEALM		1.563	-0.023	-0.18	1.498	-0.010	-0.07
UQ23FF		1.579	-0.006	-0.05	1.436	-0.071	-0.54
URRFR8	X	2.143	0.558	4.41	1.692	0.185	1.39
VJYAMC		1.490	-0.095	-0.75	1.320	-0.187	-1.41
W3CM3L		1.537	-0.048	-0.38	1.418	-0.090	-0.67
WDQDDW		1.460	-0.125	-0.99	1.340	-0.167	-1.26
XA2BXA		1.635	0.050	0.39	1.590	0.083	0.62
XBU4VE		1.675	0.090	0.71	1.715	0.208	1.56
XQXXQ3		1.520	-0.065	-0.51	1.480	-0.027	-0.21
YF8XBG		1.560	-0.025	-0.20	1.400	-0.107	-0.81
Z8QR6X		1.520	-0.065	-0.51	1.500	-0.007	-0.05
ZEDARL		1.825	0.240	1.89	1.615	0.108	0.81

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 909

## L-Malic Acid

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Grand Means		Summary Statistics	
	1.5851 g/L		1.5073 g/L
Std Dev Btwn Labs			
	0.1266 g/L		0.1332 g/L
<b>Statistics based on 45 of 52 reporting participants</b>			

**Wines tested:** SA75: Moscato; SA76: White Blend

**Comments on assigned Data Flags**

2HNLLM (X) - Extreme data.

64ER2N (X) - Extreme data.

HFPYKM (X) - Data for both samples are high. Also inconsistent in testing within Sample SA75.

QDCRL9 (X) - Inconsistent in testing between samples, data for Sample SA75 are low.

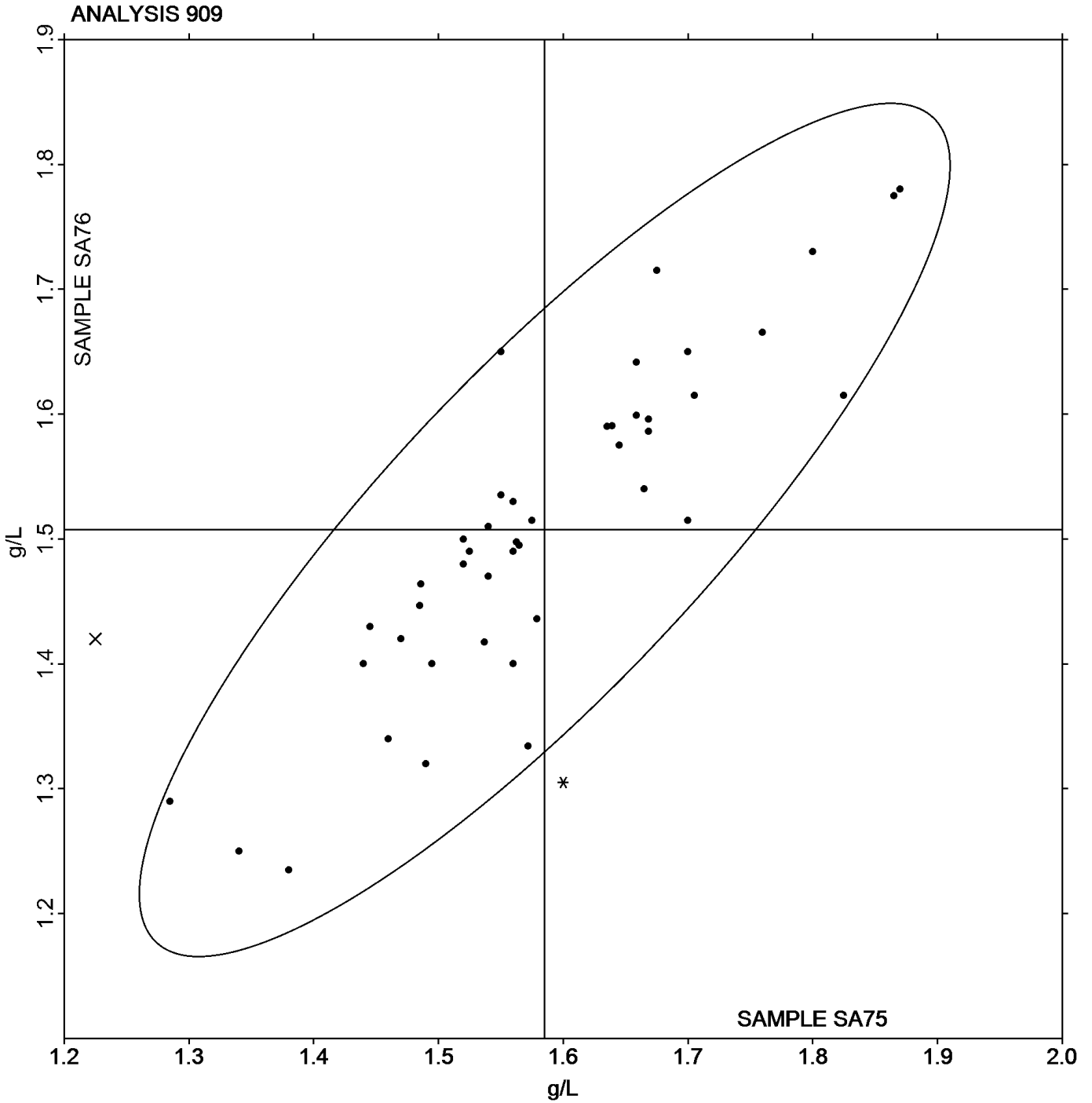
R3WLRN (X) - Data for both samples are high. Possible Systematic Error.

RNLEZ4 (X) - Data for both samples are high.

URRFR8 (X) - Inconsistent in testing between samples, data for Sample SA75 are high.

Analysis 909

L-Malic Acid



## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 910

## Glucose + Fructose

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2ELM99		84.80	3.96	1.07	81.50	1.74	0.52
2VC2TD	X	60.05	-20.79	-5.63	57.85	-21.91	-6.53
37MF8E		77.79	-3.05	-0.83	76.87	-2.89	-0.86
3RQHLN		78.40	-2.44	-0.66	78.75	-1.01	-0.30
42CHJR	X	37.45	-43.39	-11.76	37.10	-42.66	-12.70
4NB88K		83.50	2.66	0.72	81.50	1.74	0.52
6U6LLC		84.15	3.31	0.90	83.75	3.99	1.19
6UBMY Y		78.05	-2.79	-0.76	77.34	-2.42	-0.72
77J9W4	X	60.50	-20.34	-5.51	60.50	-19.26	-5.74
7NXBDH		80.65	-0.19	-0.05	79.75	-0.01	0.00
84TBZW		78.23	-2.61	-0.71	76.30	-3.47	-1.03
8CJNNH		80.00	-0.84	-0.23	79.00	-0.76	-0.23
9BJYRY		85.62	4.78	1.29	84.84	5.08	1.51
A2UH74		81.56	0.72	0.19	79.55	-0.22	-0.07
BUJW7C	X	84.73	3.89	1.05	88.19	8.43	2.51
BW8K BK		78.25	-2.59	-0.70	77.75	-2.01	-0.60
C8PXC8		80.07	-0.77	-0.21	78.19	-1.57	-0.47
DMGEXD		72.50	-8.34	-2.26	72.00	-7.76	-2.31
EA8BVF		82.38	1.53	0.42	80.75	0.99	0.29
F2CNLV	*	70.70	-10.14	-2.75	73.00	-6.76	-2.01
FXQUT2	*	91.15	10.31	2.79	88.70	8.94	2.66
GDJEY9		85.45	4.60	1.25	83.81	4.05	1.20
H67PRM		75.69	-5.16	-1.40	73.42	-6.34	-1.89
H6NQKG		83.94	3.10	0.84	80.72	0.96	0.28
HCM7JX		79.40	-1.44	-0.39	78.80	-0.96	-0.29
HQLTC7	X	60.80	-20.04	-5.43	66.00	-13.76	-4.10
JAM7GX		79.65	-1.19	-0.32	78.50	-1.26	-0.38

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 910

## Glucose + Fructose

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
JE769Y		84.45	3.61	0.98	81.60	1.84	0.55
JL6P2U		81.30	0.46	0.12	81.85	2.09	0.62
JX4ZPA		77.15	-3.70	-1.00	76.54	-3.22	-0.96
K6EB8M	X	54.65	-26.19	-7.10	65.25	-14.51	-4.32
K79YPH	X	73.00	-7.84	-2.12	80.00	0.24	0.07
KBFJJG	X	17.03	-63.81	-17.29	17.84	-61.93	-18.44
KUW2P2		82.90	2.06	0.56	84.15	4.39	1.31
KUXR6W		81.27	0.43	0.12	80.57	0.81	0.24
L3MEDL	X	68.60	-12.24	-3.32	65.50	-14.26	-4.25
M8B7UY	X	95.55	14.71	3.99	94.90	15.13	4.51
NP96KT		79.00	-1.84	-0.50	78.00	-1.76	-0.53
NTPEPK	*	84.85	4.01	1.09	86.20	6.44	1.92
P4BEZT		81.40	0.56	0.15	80.05	0.29	0.08
PWABUU		82.35	1.51	0.41	82.40	2.64	0.78
PYV4MN		78.50	-2.34	-0.63	77.50	-2.26	-0.67
QQDVW8		83.36	2.51	0.68	79.56	-0.21	-0.06
QQV2Z4		82.50	1.66	0.45	81.00	1.24	0.37
R43L7W		84.65	3.81	1.03	83.55	3.79	1.13
TVZUDT	X	93.95	13.11	3.55	87.85	8.09	2.41
ULBMVF		80.20	-0.64	-0.17	79.00	-0.76	-0.23
UM3VTX		82.90	2.06	0.56	80.90	1.14	0.34
UYRJX6		80.21	-0.64	-0.17	79.80	0.03	0.01
VCKGG9		77.60	-3.24	-0.88	77.60	-2.16	-0.64
VGWAQL		84.65	3.81	1.03	82.60	2.84	0.84
WQGNX2		77.00	-3.84	-1.04	78.10	-1.66	-0.50
YTTRMP		80.33	-0.51	-0.14	79.40	-0.36	-0.11
YX3YZM		82.15	1.31	0.35	80.00	0.24	0.07

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 910

## Glucose + Fructose

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
ZKTUB7		76.40	-4.44	-1.20	74.50	-5.26	-1.57
ZP4RYT	X	67.00	-13.84	-3.75	75.00	-4.76	-1.42

Grand Means		Summary Statistics	
	80.841 g/L		79.765 g/L
Std Dev Btwn Labs			
	3.691 g/L		3.358 g/L
Statistics based on 44 of 56 reporting participants			

Wines tested: SA75: Moscato; SA76: White Blend

### Comments on assigned Data Flags

2VC2TD (X) - Data for both samples are low.

42CHJR (X) - Extreme data.

77J9W4 (X) - Data for both samples are low.

BUJW7C (X) - Inconsistent in testing between samples.

HQLTC7 (X) - Data for both samples are low.

K6EB8M (X) - Data for both samples are low.

K79YPH (X) - Inconsistent in testing between samples.

KBFJJG (X) - Extreme data.

L3MEDL (X) - Data for both samples are low. Possible Systematic Error.

M8B7UY (X) - Data for both samples are high. Possible Systematic Error.

TVZUDT (X) - Inconsistent in testing between samples, data for Sample SA75 are high.

ZP4RYT (X) - Inconsistent in testing between samples, data for Sample SA75 are low.

## ASEV-CTS Wine Industry Interlaboratory Testing Program

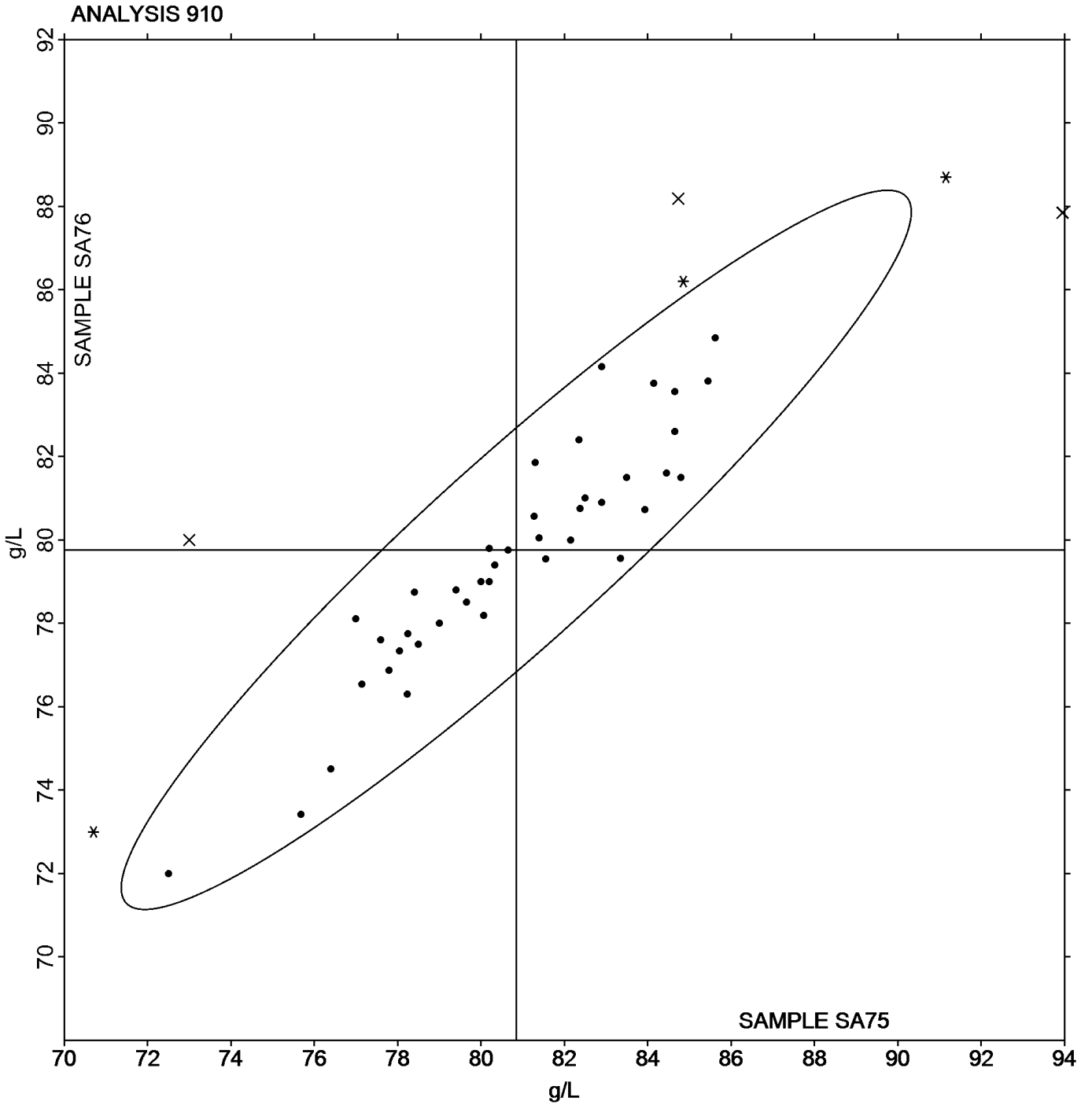
## Analysis 910

## Glucose + Fructose

## Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA75 <i>Moscato</i>			Sample SA76 <i>White Blend</i>			Labs Incl / Rpt	
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM		
HPLC	80.10	0.14	-0.74	79.40	0.56	-0.37	2	2
Enzymatic/Spectrophotometric	80.87	3.29	0.03	79.65	3.06	-0.12	33	46
FTIR	80.88	1.33	0.03	79.94	1.02	0.18	4	5
Other _____	78.94	1.00	-1.90	77.40	1.56	-2.37	2	2

Analysis 910  
Glucose + Fructose



**ASEV-CTS Wine Industry Interlaboratory Testing Program**  
**Analysis 911**  
**Copper Content**

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
4EYCQW		0.0410	-0.0195	-0.79	0.0295	-0.0229	-0.91
8ABJ7M		0.0480	-0.0125	-0.51	0.0420	-0.0104	-0.41
8T2Q6D		0.1000	0.0395	1.60	0.1000	0.0477	1.89
A2BKPX		0.0560	-0.0045	-0.18	0.0605	0.0082	0.32
C4PP6B		0.0800	0.0195	0.79	0.0800	0.0277	1.10
E6F2RA		0.0450	-0.0155	-0.63	0.0300	-0.0224	-0.89
FFXEL4		0.1000	0.0395	1.60	0.1000	0.0477	1.89
FWE88F		0.0400	-0.0205	-0.83	0.0400	-0.0124	-0.49
GAJ7RD		0.0400	-0.0205	-0.83	0.0300	-0.0224	-0.89
KRVURH		0.0415	-0.0190	-0.77	0.0305	-0.0219	-0.87
L26GUA		0.0560	-0.0045	-0.18	0.0420	-0.0104	-0.41
L3Y6C6		0.0950	0.0345	1.40	0.0800	0.0277	1.10
P88QMY		0.0570	-0.0035	-0.14	0.0500	-0.0024	-0.09
PARM8J		0.0100	-0.0505	-2.05	0.0100	-0.0424	-1.68
Q2VCAT		0.0500	-0.0105	-0.42	0.0400	-0.0124	-0.49
RFA32L		0.0515	-0.0090	-0.36	0.0375	-0.0149	-0.59
T8YBYU		0.0600	-0.0005	-0.02	0.0500	-0.0024	-0.09
W6WYYQ		0.0550	-0.0055	-0.22	0.0400	-0.0124	-0.49
WMGFQ7		0.0995	0.0390	1.58	0.0795	0.0272	1.08
X7YGVY		0.0840	0.0235	0.95	0.0755	0.0232	0.92
XHZ86R	X	0.1050	0.0445	1.80	0.0400	-0.0124	-0.49

**Grand Means**

0.06048 mg/L

**Summary Statistics**

0.05235 mg/L

**Std Dev Btwn Labs**

0.02467 mg/L

0.02524 mg/L

**Statistics based on 20 of 21 reporting participants****Wines tested:** SA75: Moscato; SA76: White Blend

ASEV-CTS Wine Industry Interlaboratory Testing Program

Analysis 911  
Copper Content

**Comments on assigned Data Flags**

XHZ86R (X) - Inconsistent in testing between samples.

**Results by Methodology (as reported by laboratory)**

Test Methodology	Sample SA75 <i>Moscato</i>			Sample SA76 <i>White Blend</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	0.0605	0.0247	0.0000	0.0524	0.0252	0.0000	20 21



## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 915

## A420nm (1cm path)

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
246U7T	X	0.3100	0.2246	29.62	0.3050	0.2379	37.47
3H4KDV		0.0870	0.0016	0.21	0.0720	0.0049	0.77
6LVEKV		0.0810	-0.0044	-0.59	0.0670	-0.0001	-0.02
7DEWAF	*	0.0900	0.0046	0.60	0.0600	-0.0071	-1.12
7MG9AQ		0.0778	-0.0076	-1.01	0.0560	-0.0112	-1.76
93M6WM		0.0930	0.0076	1.00	0.0735	0.0064	1.01
9FY4NE	*	0.1045	0.0191	2.51	0.0735	0.0064	1.01
ANK4HC		0.0820	-0.0034	-0.45	0.0660	-0.0011	-0.17
B9RY6T		0.0860	0.0006	0.07	0.0700	0.0029	0.46
CEJJ2Z		0.0830	-0.0024	-0.32	0.0650	-0.0021	-0.33
CEM6XF		0.0830	-0.0024	-0.32	0.0650	-0.0021	-0.33
CVG46N		0.0820	-0.0034	-0.45	0.0675	0.0004	0.06
CWDGU2		0.0900	0.0046	0.60	0.0710	0.0039	0.61
D46QM		0.0870	0.0016	0.21	0.0680	0.0009	0.14
DADY4V	X	0.1320	0.0466	6.14	0.1160	0.0489	7.70
DCXYUB		0.0885	0.0031	0.40	0.0695	0.0024	0.38
EZJHJJ		0.0835	-0.0019	-0.26	0.0660	-0.0011	-0.17
EZMTQN		0.0920	0.0066	0.87	0.0765	0.0094	1.48
FCVGBC	*	0.0640	-0.0214	-2.83	0.0500	-0.0171	-2.69
HDD4GP		0.0915	0.0061	0.80	0.0635	-0.0036	-0.57
HF3EA4	X	0.2810	0.1956	25.79	0.3230	0.2559	40.30
HYH6QT		0.0740	-0.0114	-1.51	0.0585	-0.0086	-1.36
J6HBW3	X	0.1129	0.0274	3.61	0.0688	0.0017	0.27
JDPBPC	X	0.0500	-0.0354	-4.67	0.0330	-0.0341	-5.37
JM3MF2		0.0913	0.0059	0.77	0.0684	0.0013	0.20
KM3RQ4		0.0835	-0.0019	-0.26	0.0645	-0.0026	-0.41
LQB8HL	X	0.0985	0.0131	1.72	0.0495	-0.0176	-2.77

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 915

## A420nm (1cm path)

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
NH7ZLH		0.0855	0.0001	0.01	0.0670	-0.0001	-0.02
Q3B97Y		0.0780	-0.0074	-0.98	0.0635	-0.0036	-0.57
QZJCDY		0.0800	-0.0054	-0.72	0.0630	-0.0041	-0.65
T8DK7A		0.0940	0.0086	1.13	0.0770	0.0099	1.56
UHU9J3	X	0.0050	-0.0804	-10.61	0.0100	-0.0571	-8.99
UVX87K		0.0910	0.0056	0.73	0.0730	0.0059	0.93
UWUP7Z		0.0850	-0.0004	-0.06	0.0735	0.0064	1.01
VARFPY	X	0.0480	-0.0374	-4.94	0.0258	-0.0413	-6.51
XD93CN	X	0.0645	-0.0209	-2.76	0.0820	0.0149	2.35
XVLNR4		0.0795	-0.0059	-0.78	0.0610	-0.0061	-0.96
YAKX9H		0.0795	-0.0059	-0.78	0.0625	-0.0046	-0.73
YJ2F83		0.0790	-0.0064	-0.85	0.0635	-0.0036	-0.57
YMKH7V		0.0980	0.0126	1.66	0.0790	0.0119	1.87
YMQGZ6		0.0900	0.0046	0.60	0.0730	0.0059	0.93

## Grand Means

0.08544 Absorbance Units

## Summary Statistics

0.06710 Absorbance Units

## Std Dev Btwn Labs

0.00758 Absorbance Units

0.00635 Absorbance Units

Statistics based on 32 of 41 reporting participants

Wines tested: SA75: Moscato; SA76: White Blend

## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 915

## A420nm (1cm path)

**Comments on assigned Data Flags**

246U7T (X) - Extreme data.

DADY4V (X) - Data for both samples are high. Also inconsistent in testing within Sample SA76.

HF3EA4 (X) - Extreme data.

J6HBW3 (X) - High data for Sample SA75.

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

LQB8HL (X) - Low data for Sample SA76.

UHU9J3 (X) - Extreme data.

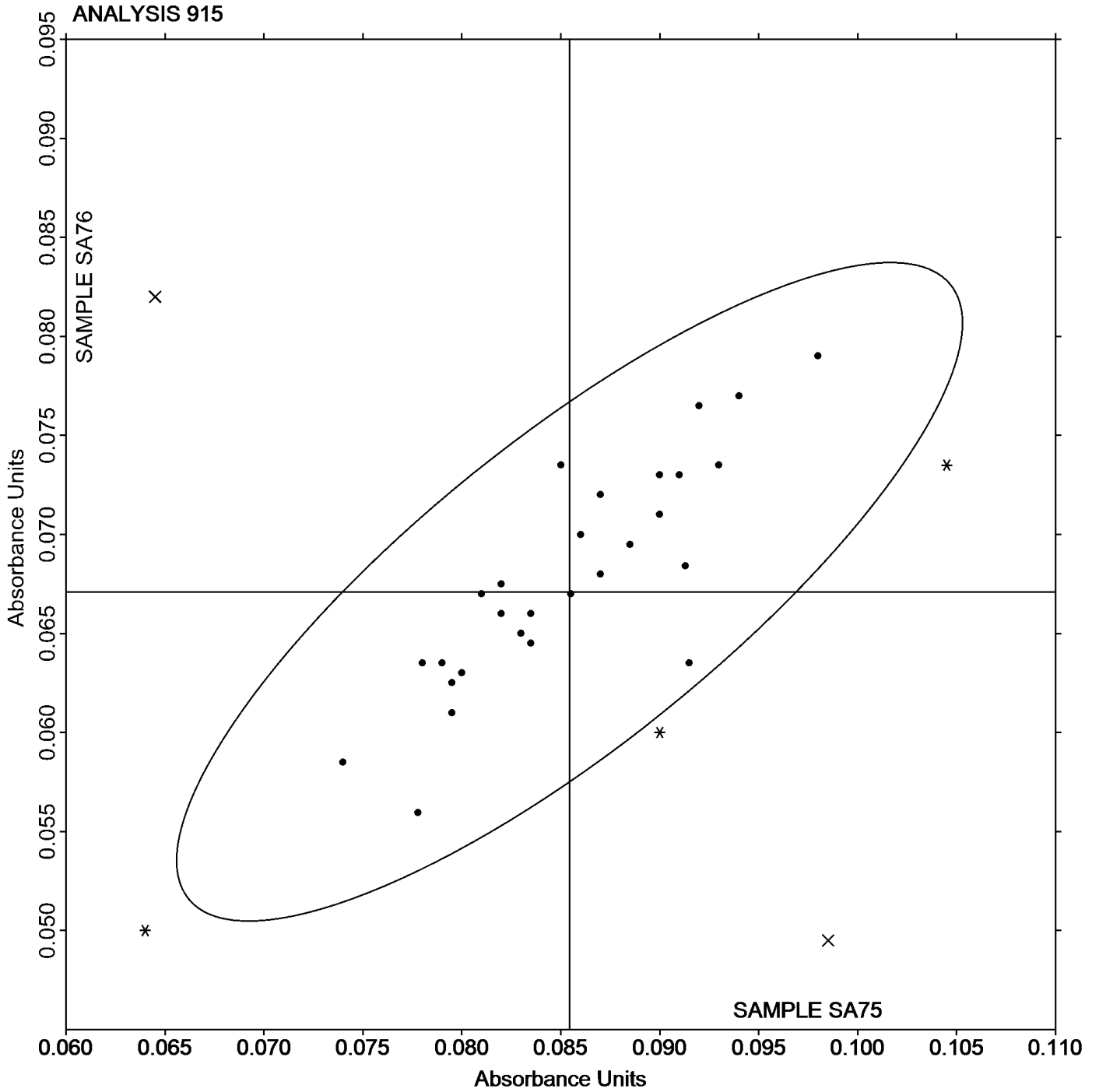
VARFPY (X) - Data for both samples are low.

XD93CN (X) - Low data for Sample SA75.

**Results by Methodology (as reported by laboratory)**

Test Methodology	Sample SA75 <i>Moscato</i>			Sample SA76 <i>White Blend</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	0.0854	0.0058	-0.0001	0.0677	0.0055	0.0006	29 41

Analysis 915  
A420nm (1cm path)



## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Analysis 916

## A520nm (1cm path)

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
38HUMR	X	-0.0190	-0.0308	-10.27	-0.0210	-0.0315	-10.40
3VNKAJ	X	0.0200	0.0082	2.73	0.0100	-0.0005	-0.18
79FMXT		0.0100	-0.0018	-0.60	0.0095	-0.0010	-0.34
9GD9H7		0.0180	0.0062	2.07	0.0150	0.0045	1.47
ANYJMD	X	0.1500	0.1382	46.08	0.1510	0.1405	46.32
AU9MUE		0.0125	0.0007	0.23	0.0100	-0.0005	-0.18
BEEGAC	X	0.0345	0.0227	7.57	0.0112	0.0007	0.22
BYLEHR		0.0150	0.0032	1.07	0.0145	0.0040	1.31
D226NT	X	0.0540	0.0422	14.07	0.0565	0.0460	15.16
D78PMX		0.0100	-0.0018	-0.60	0.0080	-0.0025	-0.84
DYCTR9		0.0080	-0.0038	-1.27	0.0060	-0.0045	-1.50
ERBYBL		0.0185	0.0067	2.23	0.0180	0.0075	2.46
F82LA4	*	0.0070	-0.0048	-1.60	0.0115	0.0010	0.32
FPDU8D		0.0120	0.0002	0.06	0.0100	-0.0005	-0.18
FR37ZQ		0.0115	-0.0003	-0.10	0.0090	-0.0015	-0.51
GEWGWN		0.0110	-0.0008	-0.27	0.0090	-0.0015	-0.51
GFQ4BD		0.0175	0.0057	1.90	0.0175	0.0070	2.30
H9KUGP	M	0.0155	0.0037	1.23	No data reported for this sample		
J7VWFC		0.0155	0.0037	1.23	0.0130	0.0025	0.81
JMG2VX		0.0135	0.0017	0.57	0.0085	-0.0020	-0.67
LA8THX		0.0131	0.0012	0.42	0.0086	-0.0020	-0.66
LCX2JL		0.0120	0.0002	0.06	0.0110	0.0005	0.15
LKKW73		0.0100	-0.0018	-0.60	0.0085	-0.0020	-0.67
NAT3ZJ		0.0090	-0.0028	-0.94	0.0090	-0.0015	-0.51
NU8ZGF		0.0120	0.0002	0.06	0.0110	0.0005	0.15
QT24P3	X	-0.0161	-0.0279	-9.31	-0.0201	-0.0306	-10.10
QWGMJ6	X	0.0255	0.0137	4.57	0.0220	0.0115	3.78

**ASEV-CTS Wine Industry Interlaboratory Testing Program**

**Analysis 916**

**A520nm (1cm path)**

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
RAQQDK	X	0.0275	0.0157	5.23	0.0130	0.0025	0.81
RQ8F77		0.0090	-0.0028	-0.94	0.0100	-0.0005	-0.18
RZEBW6	X	0.0179	0.0060	2.02	0.0321	0.0216	7.11
U49FP7		0.0100	-0.0018	-0.60	0.0110	0.0005	0.15
UPAM34		0.0120	0.0002	0.06	0.0125	0.0020	0.65
V2C477	X	0.0495	0.0377	12.57	0.0440	0.0335	11.04
X7NZ9R		0.0065	-0.0053	-1.77	0.0050	-0.0055	-1.83
X8HT3P		0.0110	-0.0008	-0.27	0.0085	-0.0020	-0.67
Y34FXW		0.0115	-0.0003	-0.10	0.0130	0.0025	0.81
YECPCT		0.0125	0.0007	0.23	0.0100	-0.0005	-0.18
YFRJY2		0.0105	-0.0013	-0.44	0.0080	-0.0025	-0.84
YWYTQE		0.0115	-0.0003	-0.10	0.0095	-0.0010	-0.34

Grand Means		Summary Statistics	
0.01181	Absorbance Units	0.01054	Absorbance Units
<b>Std Dev Btwn Labs</b>			
0.00300	Absorbance Units	0.00303	Absorbance Units
<b>Statistics based on 28 of 39 reporting participants</b>			

**Wines tested:** SA75: Moscato; SA76: White Blend

Analysis 916  
A520nm (1cm path)

**Comments on assigned Data Flags**

38HUMR (X) - Extreme data.

3VNKAJ (X) - Inconsistent in testing between samples, data for Sample SA75 are high. Also inconsistent in testing for Sample SA75.

ANYJMD (X) - Extreme data.

BEEGAC (X) - Inconsistent in testing between samples, data for Sample SA75 are high.

D226NT (X) - Extreme data.

H9KUGP (M) - Laboratory did not submit data for Sample SA76.

QT24P3 (X) - Extreme data.

QWGMJ6 (X) - Data for both samples are high. Possible Systematic Error.

RAQQDK (X) - Inconsistent in testing between samples, data for Sample SA75 are high. Also inconsistent in testing within Sample SA75.

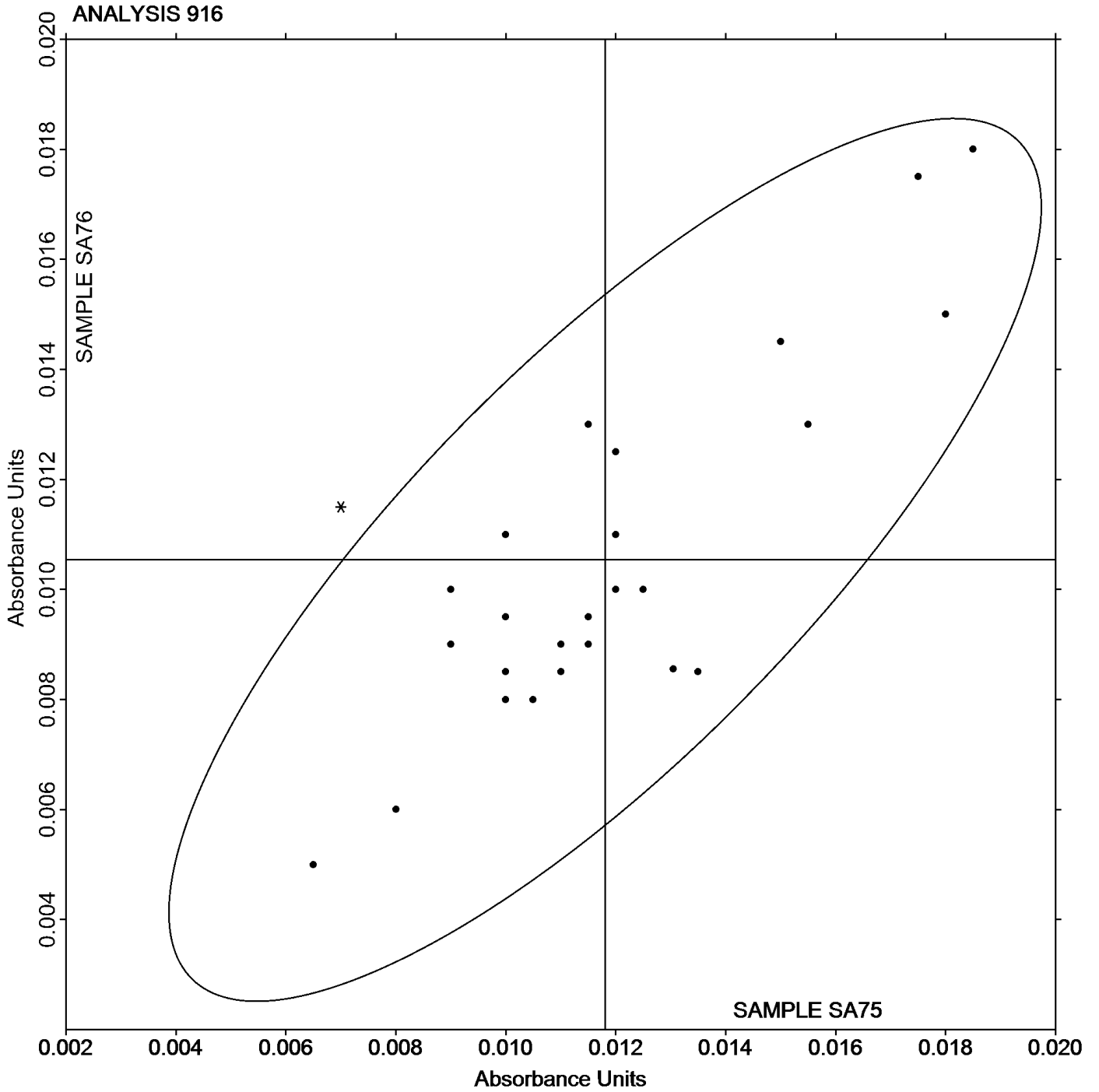
RZEBW6 (X) - Inconsistent in testing between samples, data for Sample SA76 are high. Also inconsistent in testing within Sample SA76.

V2C477 (X) - Extreme data.

**Results by Methodology (as reported by laboratory)**

Test Methodology	Sample SA75 <i>Moscato</i>			Sample SA76 <i>White Blend</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	0.0120	0.0029	0.0002	0.0105	0.0031	0.0000	27 39

Analysis 916  
A520nm (1cm path)



## ASEV-CTS Wine Industry Interlaboratory Testing Program

## Research Property 950

## Research Property - Potassium (K) Content

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Target Value	% Diff from Target Value	Lab Mean	Diff from Target Value	% Diff from Target Value
2K2APD		460.0	118.5	34.7%	440.0	98.2	28.7%
3XUW2T		388.0	46.5	13.6%	375.5	33.7	9.8%
99WW3K	*	340.0	-1.5	-0.4%	440.0	98.2	28.7%
BBDKFB		380.0	38.5	11.3%	390.0	48.2	14.1%
D44PQ8		385.0	43.5	12.7%	345.0	3.2	0.9%
DYYXQA		355.0	13.5	4.0%	350.0	8.2	2.4%
H9WMZ7	X	52.5	-289.0	-84.6%	52.0	-289.8	-84.8%
NKYJRU		347.5	6.0	1.8%	344.0	2.2	0.6%
PGEXFY		383.5	42.0	12.3%	385.0	43.2	12.6%
R4YPQC		240.5	-101.0	-29.6%	240.5	-101.4	-29.7%
REF2VG		556.9	215.4	63.1%	541.4	199.5	58.4%
TNGRU6		309.0	-32.5	-9.5%	302.0	-39.8	-11.7%
U7EHHC		520.0	178.5	52.3%	475.0	133.2	39.0%
VLBDQG		267.0	-74.5	-21.8%	276.0	-65.8	-19.3%
W87PWE		360.0	18.5	5.4%	360.0	18.2	5.3%
Z4CJTE	X	47.9	-293.6	-86.0%	34.5	-307.3	-89.9%
ZMPLMX		317.0	-24.5	-7.2%	321.5	-20.3	-5.9%

## ASEV-CTS Wine Industry Interlaboratory Testing Program

### Research Property 950

#### Research Property - Potassium (K) Content

#### Research Property Target Value

Target Value

341.50 mg/L

341.83 mg/L

*CTS has chosen to designate a target value for this property instead of using an average value. The target value was calculated from the average of designated laboratories accredited under ISO 17025 with the differences between those laboratories being less than 10% of the target value.*

**Wines tested:** SA75: Moscato; SA76: White Blend

Consensus Average  
(may differ from target value)

373.96 mg/L

372.39 mg/L

*This consensus average is based on 15 reporting participants.*

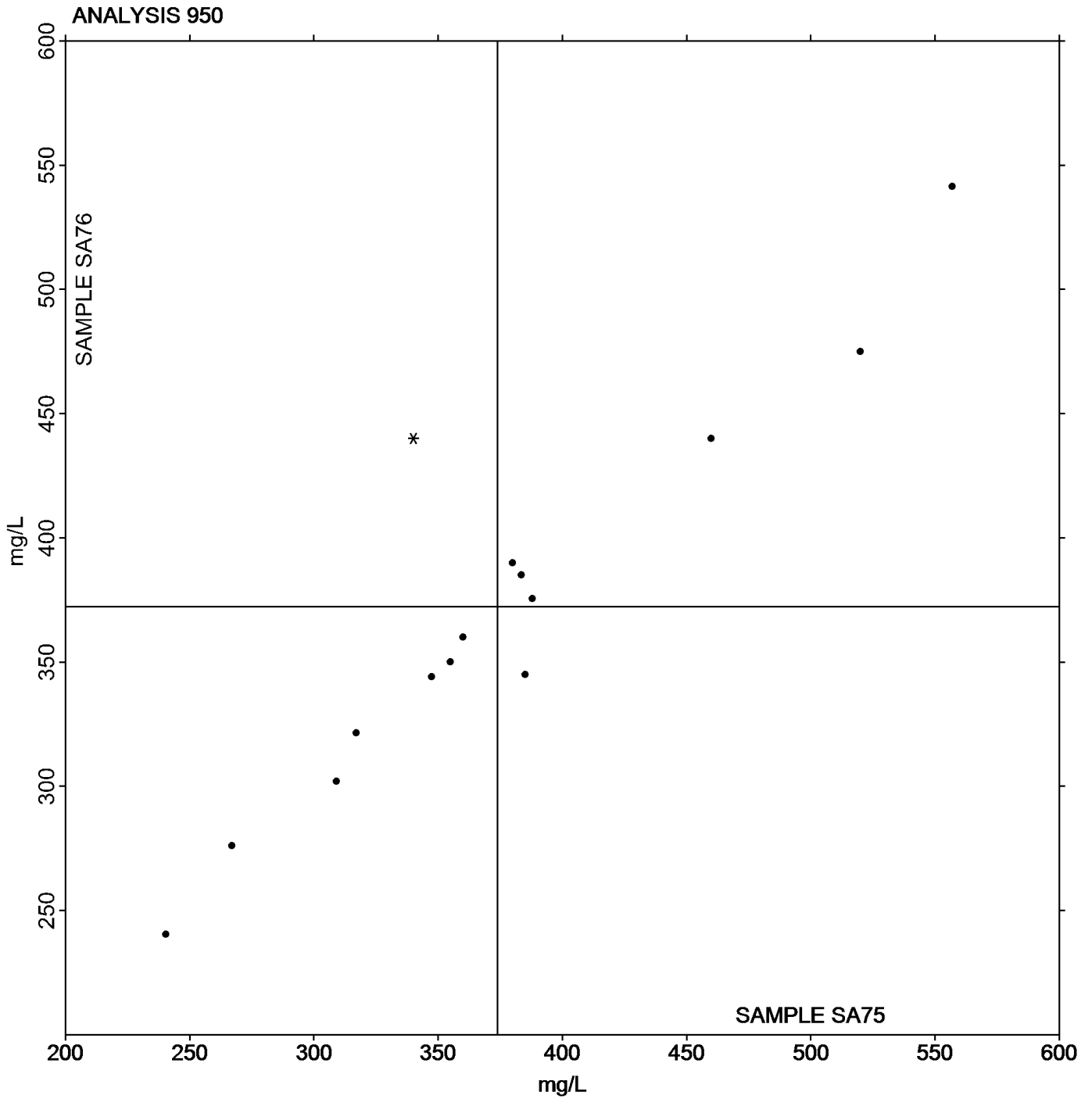
#### Comments on assigned Data Flags

H9WMZ7 (X) - Low data for both samples.

Z4CJTE (X) - Low data for boths samples.

Research Property 950

Research Property - Potassium (K) 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: Conductivity at 20C

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Target Value	% Diff from Target Value	Lab Mean	Diff from Target Value	% Diff from Target Value
34MNEM		1,616.5	143.2	9.7%	1,552.5	89.0	6.1%
4D62ZJ	*	753.0	-720.3	-48.9%	721.0	-742.5	-50.7%
4J9239		1,748.0	274.7	18.6%	1,690.5	227.0	15.5%
7ZQPEZ		1,680.0	206.7	14.0%	1,611.0	147.5	10.1%
DT66E8		1,660.5	187.2	12.7%	1,814.0	350.5	23.9%
E826UU		1,675.0	201.7	13.7%	1,600.0	136.5	9.3%
FZ2AAZ		1,659.0	185.7	12.6%	1,598.0	134.5	9.2%
H2HR7X		1,522.0	48.7	3.3%	1,463.0	-0.5	0.0%
LFCBJQ		1,735.0	261.7	17.8%	1,675.0	211.5	14.5%
LHW6CK		1,512.0	38.7	2.6%	1,471.0	7.5	0.5%
PRE2R3		1,120.0	-353.3	-24.0%	1,360.0	-103.5	-7.1%
QL2LEW		1,528.5	55.2	3.7%	1,559.0	95.5	6.5%
QQAY73	*	1,100.0	-373.3	-25.3%	1,600.0	136.5	9.3%
UBNPR3		1,428.5	-44.8	-3.0%	1,369.5	-94.0	-6.4%
VP7Y77		1,047.0	-426.3	-28.9%	1,012.5	-451.0	-30.8%
VQXVVY	X	357.0	-1,116.3	-75.8%	345.0	-1,118.5	-76.4%
VUCJ4B		1,530.0	56.7	3.8%	1,469.0	5.5	0.4%
XKKPYR		1,321.5	-151.8	-10.3%	1,272.0	-191.5	-13.1%
XV3XMQ		1,676.5	203.2	13.8%	1,368.5	-95.0	-6.5%
XZH9ZU		1,680.0	206.7	14.0%	1,600.0	136.5	9.3%

## Research Property 951

## Research Property: Conductivity at 20C

## Research Property Target Value

Target Value

1,473.32 uS/cm

1,463.50 uS/cm

*CTS has not chosen to designate a target value for this property instead of using an average value. The Consensus Average was used for this test.*

**Wines tested:** SA75: Moscato; SA76: White Blend

Consensus Average  
(may differ from target value)

1,473.32 uS/cm

1,463.50 uS/cm

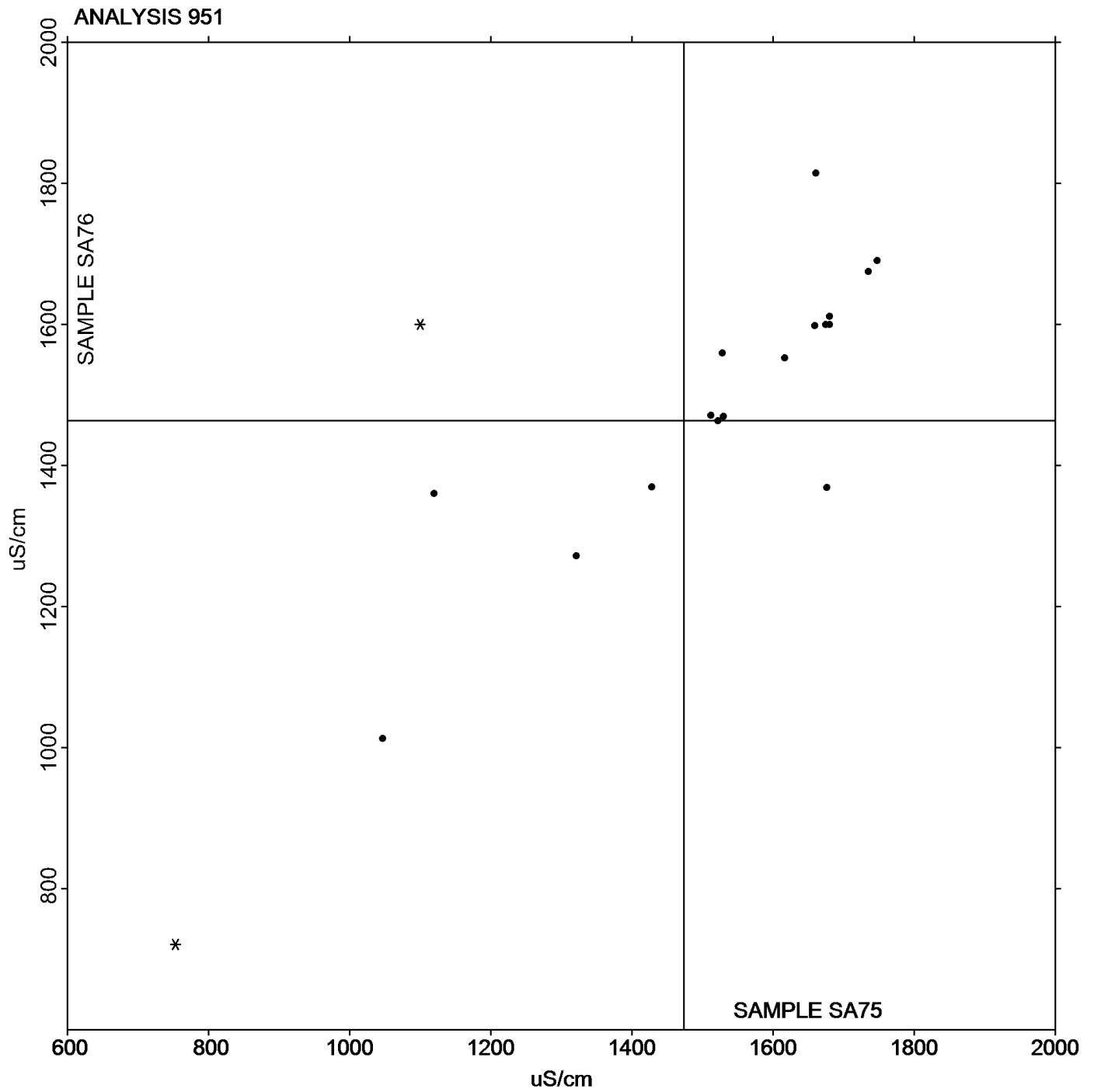
*This consensus average is based on 19 reporting participants.*

**Comments on assigned Data Flags**

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

Research Property 951

Research Property: Conductivity at 20C



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

## Analysis 952

## Research Property:Calcium (Ca) Content

WebCode	Data Flag	Sample SA75			Sample SA76		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
723H3M		107.0	3.3	0.29	107.0	0.0	0.00
D63PRX		104.0	0.3	0.02	107.0	0.0	0.00
EW2U86		108.5	4.8	0.42	112.0	5.0	0.43
G8CCT2		95.0	-8.7	-0.76	105.0	-2.0	-0.17
GKKTJA		119.7	16.0	1.39	119.3	12.3	1.05
GKLLHH		112.5	8.8	0.77	115.0	8.0	0.68
GXMU77		110.0	6.3	0.55	120.0	13.0	1.11
H43VN3		110.5	6.7	0.59	113.7	6.6	0.57
HF6H77		78.0	-25.7	-2.24	78.0	-29.0	-2.49
K2XERP		88.0	-15.7	-1.37	93.0	-14.0	-1.20
P7RWX4		107.0	3.3	0.29	107.0	0.0	0.00
XBGE3N		104.5	0.8	0.07	107.5	0.5	0.04

## Research Property Target Value

Target Value

**108.33** mg/L**111.33** mg/L

*CTS has chosen to designate a target value for this property instead of using an average value. The target value was calculated from the average of designated laboratories accredited under ISO 17025 with the differences between those laboratories being less than 10% of the target value.*

**Wines tested:** SA75: Moscato; SA76: White BlendConsensus Average  
(may differ from target value)

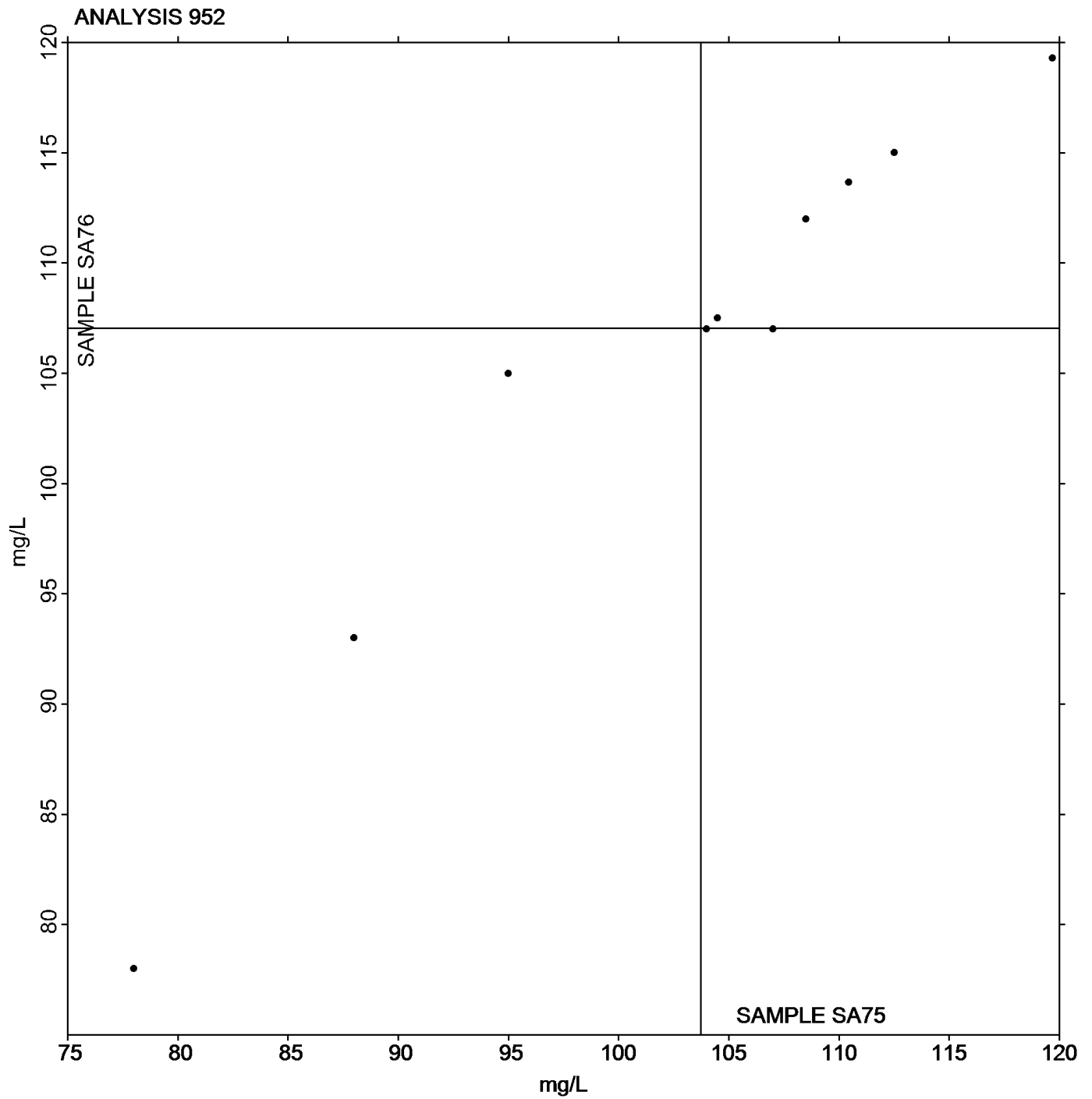
103.72 mg/L

107.04 mg/L

*This consensus average is based on 12 reporting participants.*

Analysis 952

Research Property: Calcium (Ca) Content



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