



Wine Industry Interlaboratory Program

Summary Report #075 - Fall 2023

[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>911</u>	<u>Copper Content</u>
<u>912</u>	<u>Potassium Content</u>
<u>915</u>	<u>A420nm (1cm path)</u>
<u>916</u>	<u>A520nm (1cm path)</u>
<u>950</u>	<u>Research: Citric Acid</u>
<u>951</u>	<u>Research: Potassium Sorbate as Sorbic Acid</u>
<u>952</u>	<u>Research: Methanol Content</u>

About the Wine Industry Interlaboratory Program

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

About CTS

Founded in 1971, Collaborative Testing Services, Inc. (CTS) is a privately - owned company that specializes in interlaboratory tests for a variety of industries including color, rubber, plastics, fasteners and metals, containerboard, paper, agriculture, hemp, and wine, 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 100 countries, currently participate in the CTS programs.

For further information concerning this report contact:

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Key for Web Summary Report (Page 1 of 2)

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

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

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

Common Problems Highlighted in Footnotes

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

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



ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #075

Fall 2023

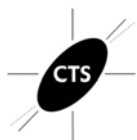
Analysis 901 Ethanol (% of volume)

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2BTTZT		12.26	-0.01	-0.20	12.49	-0.02	-0.22
2LQUEH	X	12.54	0.27	3.62	12.51	0.00	0.05
37DKCT	X	12.00	-0.27	-3.73	12.39	-0.12	-1.59
37UYFW		12.30	0.03	0.35	12.54	0.03	0.40
3E7X8M	X	11.97	-0.31	-4.22	12.44	-0.07	-0.97
3NCXMF		12.17	-0.10	-1.42	12.42	-0.09	-1.18
3X3HQT		12.33	0.06	0.76	12.52	0.01	0.19
42FFXF	X	11.86	-0.42	-5.72	12.14	-0.37	-5.00
4B3GEP		12.28	0.01	0.07	12.51	0.00	0.05
64YUYU		12.29	0.01	0.14	12.56	0.05	0.74
6LWDQB		12.27	-0.01	-0.13	12.50	-0.01	-0.08
8UNCGM	*	12.54	0.27	3.62	12.75	0.24	3.27
8XLVHL	*	12.00	-0.27	-3.74	12.30	-0.21	-2.82
9AAH2L		12.27	0.00	-0.06	12.51	0.00	0.05
9BPEUL		12.30	0.03	0.35	12.53	0.02	0.33
9EPPPL		12.33	0.05	0.69	12.54	0.03	0.46
9FYU3A		12.24	-0.03	-0.47	12.48	-0.03	-0.36
9X6YQL		12.20	-0.07	-1.02	12.40	-0.11	-1.45
A3Q9FB		12.27	-0.01	-0.13	12.50	-0.01	-0.08
A44Z77		12.27	0.00	-0.06	12.50	-0.01	-0.15
AAARGP		12.32	0.04	0.55	12.59	0.08	1.15
AEME99		12.27	0.00	-0.06	12.49	-0.02	-0.22
AEPZ6N		12.29	0.02	0.21	12.53	0.02	0.33
AMYNHM		12.30	0.03	0.35	12.50	-0.01	-0.08
AZ3Y4N		12.26	-0.02	-0.27	12.49	-0.02	-0.22
B9BVJE	*	12.50	0.23	3.07	12.75	0.24	3.33
BD8HEN		12.30	0.03	0.35	12.53	0.02	0.33
CNZLVM		12.32	0.05	0.62	12.57	0.06	0.81
CPC9FM		12.19	-0.09	-1.22	12.45	-0.06	-0.77
D2448M		12.32	0.04	0.55	12.55	0.04	0.53
DAXCRD		12.25	-0.02	-0.33	12.48	-0.03	-0.36
DKJD8M		12.29	0.02	0.21	12.53	0.02	0.33
DKK4MH		12.30	0.02	0.28	12.54	0.03	0.46
DNDCHC		12.26	-0.02	-0.27	12.42	-0.09	-1.24
EM2XRH		12.38	0.10	1.37	12.62	0.11	1.49



Analysis 901
Ethanol (% of volume)

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
ENFJ46		12.24	-0.03	-0.47	12.48	-0.03	-0.42
F44Y2A	X	11.00	-1.27	-17.36	11.55	-0.96	-13.07
FNAHZH		12.31	0.03	0.41	12.55	0.04	0.60
FP4E4H		12.30	0.03	0.35	12.53	0.02	0.33
FXEGPJ		12.29	0.01	0.14	12.52	0.01	0.19
FXXJLJ		12.18	-0.09	-1.29	12.37	-0.14	-1.86
G34DRF		12.29	0.02	0.21	12.53	0.02	0.26
H662JA		12.29	0.02	0.21	12.53	0.02	0.33
HAK98A		12.28	0.00	0.01	12.49	-0.02	-0.22
HFRYAF		12.27	0.00	-0.06	12.50	-0.01	-0.08
HN6NB9		12.35	0.08	1.03	12.58	0.07	1.01
HR6Z79		12.29	0.02	0.21	12.53	0.02	0.33
HRGY2H		12.24	-0.04	-0.54	12.47	-0.04	-0.49
HXAYHY		12.09	-0.18	-2.51	12.36	-0.15	-2.00
HYKWVF		12.21	-0.06	-0.88	12.45	-0.06	-0.77
J7GXNE		12.30	0.03	0.35	12.50	-0.01	-0.08
J9MHEZ	X	11.45	-0.82	-11.23	12.40	-0.11	-1.45
JLWVVZ		12.11	-0.17	-2.31	12.37	-0.14	-1.93
K6ERH6		12.23	-0.04	-0.61	12.47	-0.04	-0.56
KPMRVB		12.28	0.01	0.07	12.52	0.01	0.19
KYCFTY		12.30	0.03	0.35	12.50	-0.01	-0.08
L9D3E6		12.28	0.00	0.01	12.52	0.01	0.12
LKQMFC	X	12.62	0.35	4.71	12.83	0.32	4.36
LXFJGB		12.30	0.02	0.28	12.53	0.02	0.33
LY8HV9		12.20	-0.08	-1.08	12.40	-0.11	-1.45
MQVJ2X		12.15	-0.12	-1.70	12.40	-0.11	-1.45
MT22ZT		12.27	0.00	-0.06	12.50	-0.01	-0.15
N2NMFB		12.18	-0.09	-1.29	12.42	-0.09	-1.18
NZG8A6		12.30	0.02	0.28	12.54	0.03	0.46
NZVTKR	X	0.99	-11.28	-153.71	0.99	-11.52	-157.39
PAH6G6		12.27	0.00	-0.06	12.51	0.00	0.05
PALEN6		12.18	-0.10	-1.36	12.41	-0.10	-1.31
PRG2VU		12.33	0.06	0.76	12.56	0.05	0.74
Q44VKT		12.27	-0.01	-0.13	12.50	-0.01	-0.08
Q9GE2A	*	12.54	0.26	3.55	12.78	0.27	3.74



Analysis 901
Ethanol (% of volume)

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
Q9WVW4		12.31	0.04	0.48	12.55	0.04	0.53
QCHF4T		12.31	0.04	0.48	12.54	0.03	0.46
QQ328Y		12.27	-0.01	-0.13	12.49	-0.02	-0.29
QQHGGU	X	13.20	0.93	12.61	12.30	-0.21	-2.82
QVYN6T		12.26	-0.02	-0.27	12.49	-0.02	-0.29
R838FT		12.28	0.01	0.07	12.51	0.00	0.05
RGUPU2		12.27	0.00	-0.06	12.50	-0.01	-0.08
RYDJJ6		12.25	-0.02	-0.33	12.50	-0.01	-0.15
TA6RGX		12.34	0.07	0.89	12.57	0.06	0.87
TAQ3F8		12.20	-0.07	-1.02	12.50	-0.01	-0.08
TCWN7R	X	12.45	0.18	2.39	12.50	-0.01	-0.08
TTYHK6		12.28	0.00	0.01	12.57	0.06	0.87
U732W6		12.26	-0.02	-0.27	12.50	-0.01	-0.08
UDKJ67		12.29	0.01	0.14	12.50	-0.01	-0.15
UPHBW6		12.23	-0.05	-0.68	12.43	-0.08	-1.04
URHQ2L		12.32	0.05	0.62	12.56	0.05	0.74
VKF2XM	X	12.22	-0.05	-0.74	12.31	-0.20	-2.68
VRY436	*	12.40	0.13	1.71	12.70	0.19	2.65
W4DEE2		12.22	-0.05	-0.74	12.41	-0.10	-1.31
W4P9U2		12.31	0.03	0.41	12.54	0.03	0.46
WFL7XZ		12.27	-0.01	-0.13	12.50	-0.01	-0.08
WGUGPX		12.27	0.00	-0.06	12.49	-0.02	-0.22
WX6XWZ		12.26	-0.02	-0.27	12.50	-0.01	-0.08
WYX7Q2		12.30	0.02	0.28	12.53	0.02	0.33
XNTKUM		12.30	0.03	0.35	12.54	0.03	0.40
XPM462		12.29	0.02	0.21	12.53	0.02	0.33
XXYATR		12.30	0.03	0.35	12.53	0.02	0.33
Y2V4EY		12.28	0.00	0.01	12.50	-0.01	-0.15
YEJFHW		12.23	-0.04	-0.61	12.48	-0.03	-0.42
YL2N7T		12.27	-0.01	-0.13	12.51	0.00	-0.01
YTLLW2		12.28	0.00	0.01	12.52	0.01	0.12
Z4DVUU		12.33	0.05	0.69	12.56	0.05	0.74
Z8DYL G		12.21	-0.06	-0.88	12.47	-0.04	-0.56
ZGLQXW	X	12.58	0.30	4.09	12.63	0.12	1.69
ZUPYTT		12.26	-0.01	-0.20	12.48	-0.03	-0.36



WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
ZZF93R		12.28	0.01	0.07	12.52	0.01	0.19

Grand Means	Summary Statistics
12.275 percent	12.506 percent
Std Dev Btwn Labs 0.073 percent	0.073 percent
Statistics based on 94 of 106 reporting participants	

Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc

Comments on Assigned Data Flags for Test #901

- ZGLQXW (X) - Data for sample SA49 are high. Inconsistent within the determinations of sample SA49.
- 37DKCT (X) - Data for sample SA49 are low.
- LKQMFC (X) - Data for both samples are high.
- NZVTKR (X) - Extreme data.
- QQHGGU (X) - Data for sample SA49 are high and data for sample SA50 are low. Inconsistent in testing between samples.
- TCWN7R (X) - Inconsistent in testing between samples.
- VKF2XM (X) - Inconsistent in testing between samples.
- 42FFXF (X) - Data for both samples are low.
- J9MHEZ (X) - Data for sample SA49 are low.
- 2LQUEH (X) - Data for sample SA49 are high. Inconsistent within the determinations of sample SA49.
- 3E7X8M (X) - Data for sample SA49 are low.
- F44Y2A (X) - Data for both samples are low. Inconsistent within the determinations of both samples.

Results by Methodology (as reported by laboratory)

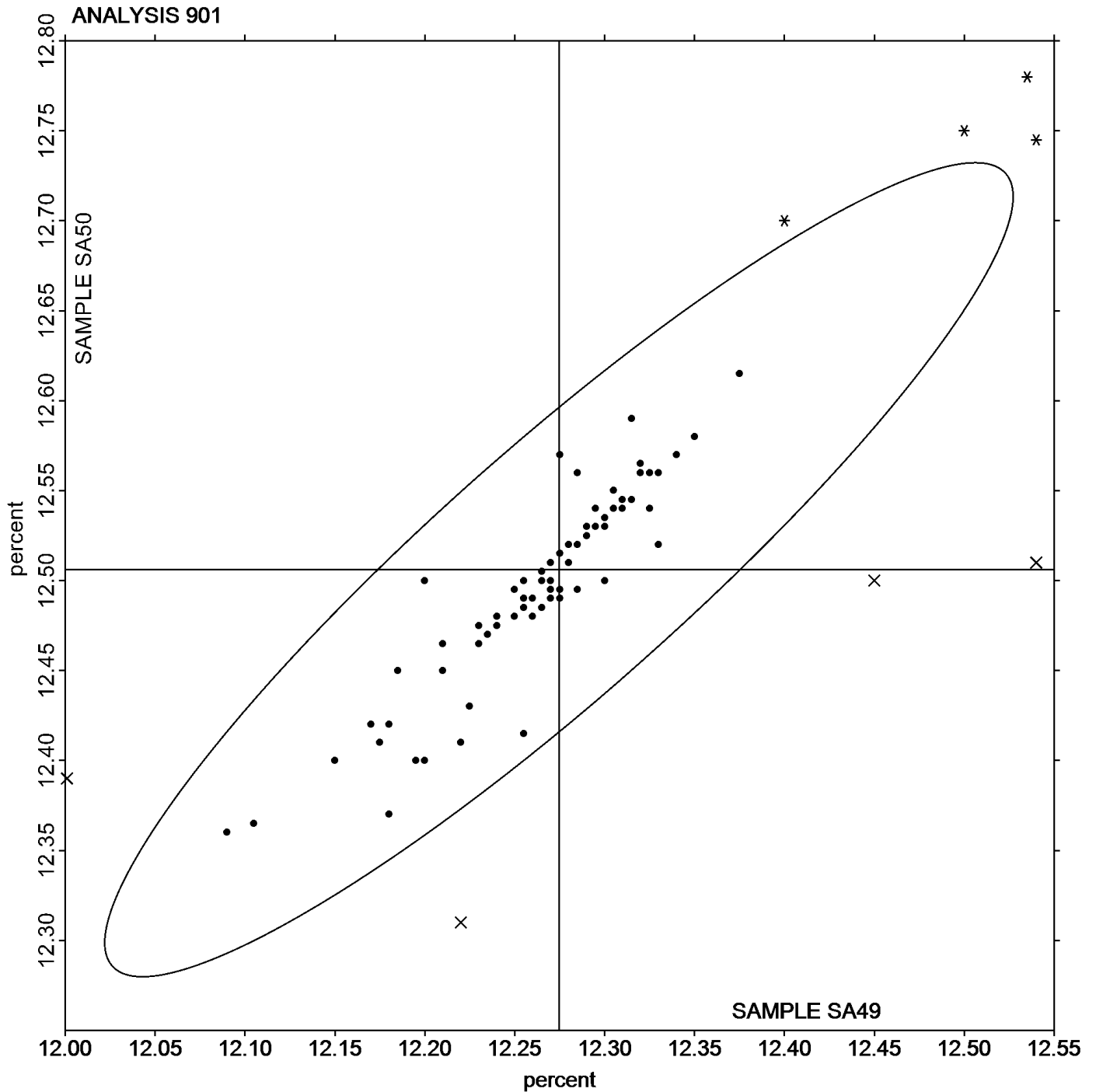
Test Methodology	Sample SA49 <i>Pinot Grigio</i>			Sample SA50 <i>Sauvignon Blanc</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Ebulliometer Method	12.350	0.129	0.08	12.613	0.131	0.11	4/8
Gas Chromatography Method	12.260	0.035	-0.01	12.487	0.075	-0.02	3/5
Near Infrared Method	12.282	0.059	0.01	12.517	0.060	0.01	68/71
Dist. / Density Method	12.205	0.103	-0.07	12.444	0.084	-0.06	11/14
FTIR	12.263	0.073	-0.01	12.481	0.069	-0.03	6/6
Other _____	12.270	0.000	0.00	12.490	0.000	-0.02	2/2



Analysis 901

Fall 2023

Ethanol (% of volume)





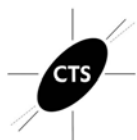
Analysis 902
Total Sulfur Dioxide

Table with 8 columns: WebCode, Data Flag, Lab Mean, Diff from Grand Mean, CPV (for Sample SA49); Lab Mean, Diff from Grand Mean, CPV (for Sample SA50). Rows list various sample codes and their corresponding values.



Analysis 902
Total Sulfur Dioxide

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
FP4E4H		129.0	-4.8	-0.49	115.0	-3.5	-0.42
FXEGPJ		119.0	-14.8	-1.51	109.0	-9.5	-1.15
FXKJLJ	X	176.5	42.7	4.36	151.5	33.0	4.01
G34DRF		144.0	10.2	1.04	127.5	9.0	1.10
H662JA		125.5	-8.3	-0.85	106.5	-12.0	-1.45
HAK98A		132.5	-1.3	-0.13	118.0	-0.5	-0.06
HFRYAF		127.0	-6.8	-0.69	114.0	-4.5	-0.54
HN6NB9		144.5	10.7	1.09	126.0	7.5	0.91
HR6Z79		127.0	-6.8	-0.69	113.0	-5.5	-0.66
HRGY2H		133.0	-0.8	-0.08	119.5	1.0	0.13
HTGPFD		135.5	1.7	0.17	112.0	-6.5	-0.78
HXAYHY		127.0	-6.8	-0.69	114.0	-4.5	-0.54
HYKWVF		140.5	6.7	0.68	121.0	2.5	0.31
J7GXNE		132.5	-1.3	-0.13	121.0	2.5	0.31
J9MHEZ		122.7	-11.1	-1.14	102.4	-16.1	-1.95
JLWVVZ		137.0	3.2	0.33	130.0	11.5	1.40
K6ERH6		115.5	-18.3	-1.86	104.0	-14.5	-1.75
KPMRVB		130.0	-3.7	-0.38	122.0	3.6	0.43
KYCFTY	*	113.0	-20.8	-2.12	97.0	-21.5	-2.60
LKQMFC		139.1	5.3	0.54	131.4	12.9	1.56
LXFJGB		140.0	6.2	0.63	120.5	2.0	0.25
LY8HV9		137.5	3.7	0.38	124.0	5.5	0.67
MT22ZT		137.0	3.2	0.33	119.0	0.5	0.07
N2NMFB		143.0	9.2	0.94	121.0	2.5	0.31
NZG8A6		142.9	9.1	0.92	123.3	4.8	0.58
NZVTKR		137.5	3.7	0.38	122.0	3.5	0.43
PAH6G6		130.0	-3.8	-0.39	116.5	-2.0	-0.24
PALEN6		139.5	5.7	0.58	120.5	2.0	0.25
PRG2VU		147.0	13.2	1.35	128.0	9.5	1.16
Q44VKT		120.5	-13.3	-1.36	108.5	-10.0	-1.21
Q9GE2A		149.5	15.7	1.60	128.5	10.0	1.22
Q9VWV4		142.5	8.7	0.89	121.0	2.5	0.31
QCHF4T		144.5	10.7	1.09	127.5	9.0	1.10
QQ328Y		135.0	1.2	0.12	126.0	7.5	0.91
QQHGGU		144.3	10.5	1.07	126.8	8.3	1.01



Analysis 902
Total Sulfur Dioxide

Table with columns: WebCode, Data Flag, Sample SA49 (Lab Mean, Diff from Grand Mean, CPV), Sample SA50 (Lab Mean, Diff from Grand Mean, CPV). Rows include various codes like QVYN6T, R838FT, etc.



Analysis 902
Total Sulfur Dioxide

Grand Means		Summary Statistics	
	133.79 mg/L		118.46 mg/L
Std Dev Btwn Labs			8.25 mg/L
	9.81 mg/L		
Statistics based on 96 of 101 reporting participants			

Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc

Comments on Assigned Data Flags for Test #902

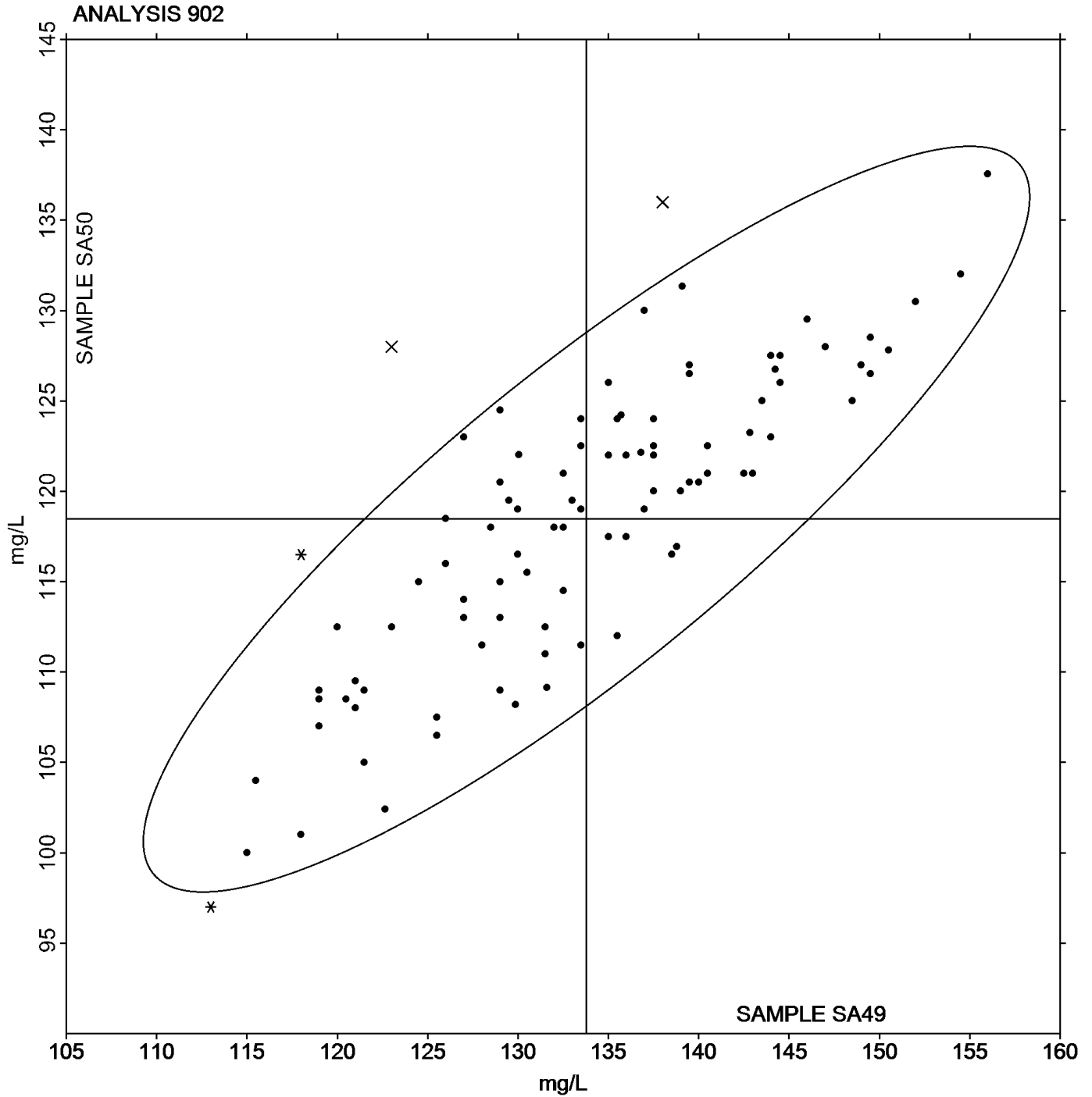
- FXKJLJ (X) - Data for both samples are high. Possible Systematic Error.
- 8XLVHL (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.
- 9EPPPL (X) - Data for both samples are low. Possible Systematic Error.
- WGUGPX (X) - Inconsistent in testing between samples.
- DKJD8M (X) - Inconsistent in testing between samples.

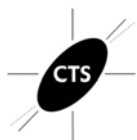
Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA49 <i>Pinot Grigio</i>			Sample SA50 <i>Sauvignon Blanc</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Please specify method used	132.000	4.243	-1.8	125.250	1.061	6.8	2/2
Ripper Method	126.621	6.524	-7.2	114.931	7.401	-3.5	37/39
Aeration Oxidation (AO) Method	136.011	6.455	2.2	116.164	6.290	-2.3	10/11
Segmented Flow Analyzer	133.476	10.073	-0.3	114.037	9.197	-4.4	5/6
Enzymatic Method	143.388	8.111	9.6	126.112	5.702	7.7	13/14
Colormetric Analyzer	141.036	7.899	7.2	122.722	7.300	4.3	18/18
FTIR	137.000	8.292	3.2	118.800	6.419	0.3	5/5
Flow Injection Analysis	129.917	9.356	-3.9	115.833	10.003	-2.6	6/6



Analysis 902
Total Sulfur Dioxide





Free Sulfur Dioxide

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2BTTZT		41.00	0.15	0.04	41.00	2.77	0.57
2LQUEH		32.50	-8.35	-2.09	27.50	-10.73	-2.21
37DKCT		47.08	6.23	1.56	38.52	0.29	0.06
37UYFW		42.00	1.15	0.29	40.50	2.27	0.47
3E7X8M		43.00	2.15	0.54	44.50	6.27	1.29
3NCXMF		44.50	3.65	0.91	46.00	7.77	1.60
3X3HQT		34.50	-6.35	-1.59	30.50	-7.73	-1.59
42FFXF		39.65	-1.20	-0.30	33.15	-5.08	-1.05
4B3GEP	*	31.50	-9.35	-2.34	26.00	-12.23	-2.52
64YUYU		44.15	3.30	0.82	39.70	1.47	0.30
6LWDQB		40.00	-0.85	-0.21	35.00	-3.23	-0.67
8UNCGM		42.95	2.10	0.52	37.95	-0.28	-0.06
8XLVHL		39.00	-1.85	-0.46	38.50	0.27	0.06
9AAH2L		41.00	0.15	0.04	37.50	-0.73	-0.15
9BPEUL		37.00	-3.85	-0.96	30.00	-8.23	-1.70
9EPPPL		45.00	4.15	1.04	43.00	4.77	0.98
9FYU3A		45.00	4.15	1.04	44.00	5.77	1.19
9X6YQL		43.00	2.15	0.54	36.00	-2.23	-0.46
A3Q9FB		37.50	-3.35	-0.84	37.00	-1.23	-0.25
A44Z77		41.00	0.15	0.04	39.50	1.27	0.26
AAARGP		44.50	3.65	0.91	38.00	-0.23	-0.05
AEME99		44.00	3.15	0.79	43.00	4.77	0.98
AEPZ6N	*	51.50	10.65	2.66	44.50	6.27	1.29
AMYNHM		46.50	5.65	1.41	38.50	0.27	0.06
AZ3Y4N		43.50	2.65	0.66	37.00	-1.23	-0.25
B9BVJE		40.57	-0.29	-0.07	36.33	-1.90	-0.39
BD8HEN		42.00	1.15	0.29	38.00	-0.23	-0.05
CNZLVM		38.00	-2.85	-0.71	37.20	-1.03	-0.21
CPC9FM		31.00	-9.85	-2.46	29.50	-8.73	-1.80
D2448M		38.00	-2.85	-0.71	34.50	-3.73	-0.77
DAXCRD		49.00	8.15	2.04	44.00	5.77	1.19
DKJD8M		46.50	5.65	1.41	44.00	5.77	1.19
DKK4MH		35.00	-5.85	-1.46	35.50	-2.73	-0.56
DNDCHC		44.05	3.20	0.80	38.70	0.47	0.10
EM2XRH		38.00	-2.85	-0.71	36.20	-2.03	-0.42



Analysis 903
Free Sulfur Dioxide

Table with 8 columns: WebCode, Data Flag, Lab Mean, Diff from Grand Mean, CPV (for Sample SA49); Lab Mean, Diff from Grand Mean, CPV (for Sample SA50). Rows include various codes like ENFJ46, F44Y2A, FNAHZH, etc.



ASEV-CTS Wine Industry Interlaboratory Testing Program

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Analysis 903

Fall 2023

Free Sulfur Dioxide

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
Q9WVW4		44.00	3.15	0.79	42.00	3.77	0.78
QCHF4T		37.75	-3.10	-0.78	33.60	-4.63	-0.95
QQ328Y		37.00	-3.85	-0.96	36.00	-2.23	-0.46
QQHGGU		36.63	-4.23	-1.06	30.95	-7.28	-1.50
QVYN6T		40.00	-0.85	-0.21	33.50	-4.73	-0.97
R838FT		42.00	1.15	0.29	37.50	-0.73	-0.15
RGUPU2		43.00	2.15	0.54	44.00	5.77	1.19
RYDJJ6		38.00	-2.85	-0.71	37.00	-1.23	-0.25
TA6RGX		44.50	3.65	0.91	45.00	6.77	1.40
TAQ3F8	*	39.70	-1.15	-0.29	46.10	7.87	1.62
TCWN7R		40.80	-0.05	-0.01	30.40	-7.83	-1.61
TTYHK6		35.03	-5.83	-1.46	29.13	-9.11	-1.88
U732W6		41.50	0.65	0.16	38.50	0.27	0.06
UDKJ67		44.00	3.15	0.79	40.00	1.77	0.36
UPHBW6		38.00	-2.85	-0.71	32.50	-5.73	-1.18
URHQ2L		43.00	2.15	0.54	39.50	1.27	0.26
VKF2XM		41.00	0.15	0.04	38.50	0.27	0.06
VRY436		43.00	2.15	0.54	38.50	0.27	0.06
W4DEE2		42.00	1.15	0.29	41.50	3.27	0.67
W4P9U2		45.25	4.40	1.10	42.50	4.27	0.88
WFL7XZ	X	27.90	-12.95	-3.24	22.55	-15.68	-3.23
WGUGPX		34.50	-6.35	-1.59	34.00	-4.23	-0.87
WX6XWZ		37.00	-3.85	-0.96	32.00	-6.23	-1.28
WYX7Q2		44.00	3.15	0.79	46.00	7.77	1.60
XNTKUM		34.50	-6.35	-1.59	35.50	-2.73	-0.56
XPM462		41.00	0.15	0.04	38.00	-0.23	-0.05
XXYATR		40.00	-0.85	-0.21	41.50	3.27	0.67
Y2V4EY		43.00	2.15	0.54	38.50	0.27	0.06
YEJFHW		43.00	2.15	0.54	45.00	6.77	1.40
YL2N7T		40.00	-0.85	-0.21	42.00	3.77	0.78
YTLLW2		38.00	-2.85	-0.71	35.00	-3.23	-0.67
Z4DVUU		41.50	0.65	0.16	34.65	-3.58	-0.74
Z8DYLG	X	33.50	-7.35	-1.84	40.50	2.27	0.47
ZGLQXW		43.50	2.65	0.66	39.00	0.77	0.16
ZUPYTT		42.00	1.15	0.29	38.00	-0.23	-0.05



**Analysis 903
Free Sulfur Dioxide**

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
ZZF93R		40.50	-0.35	-0.09	33.50	-4.73	-0.97

Grand Means		Summary Statistics	
	40.854 mg/L		38.230 mg/L
Std Dev Btwn Labs			4.852 mg/L
	3.999 mg/L		
Statistics based on 103 of 106 reporting participants			

Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc

Comments on Assigned Data Flags for Test #903

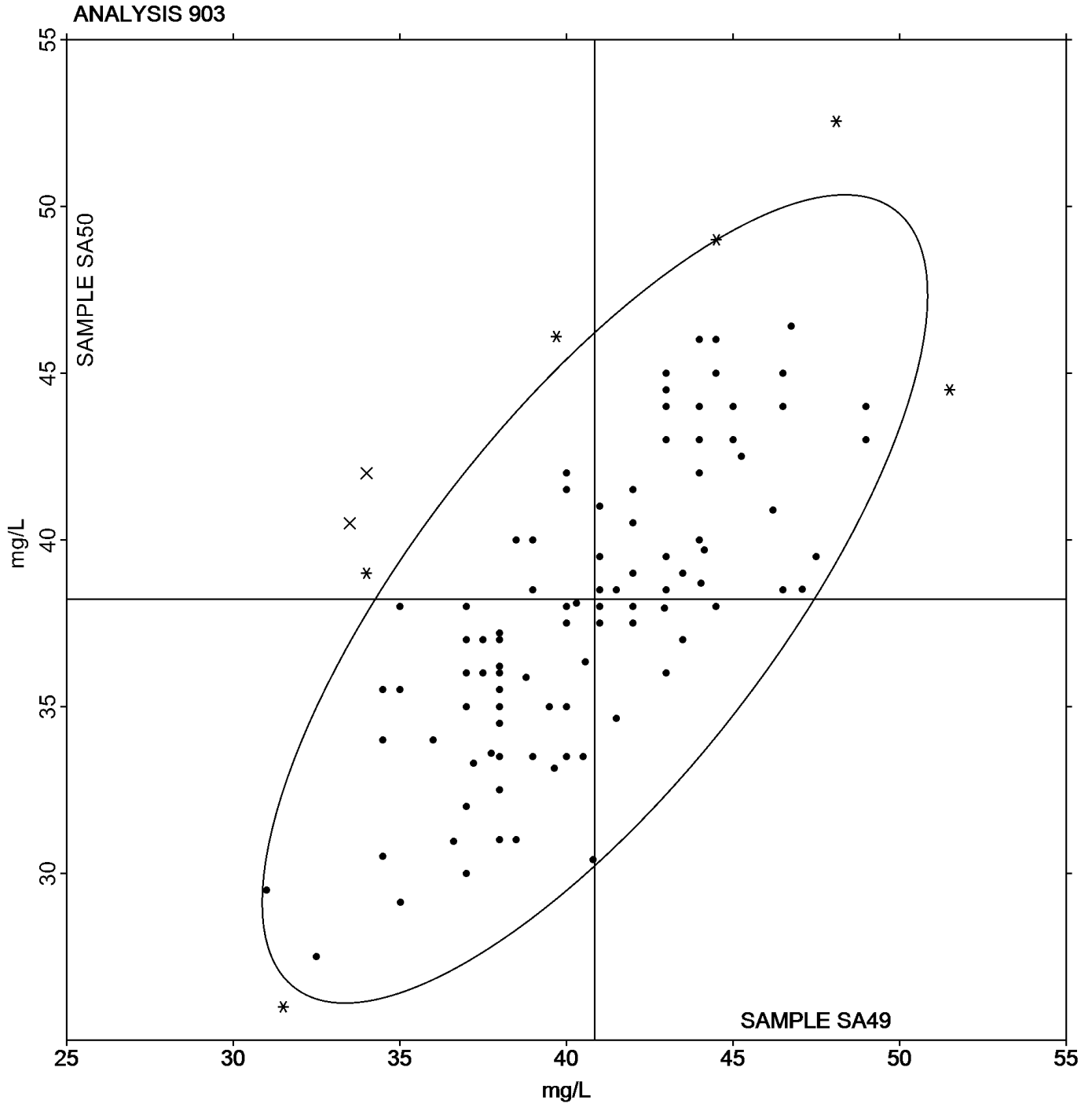
- WFL7XZ (X) - Data for both samples are low.
- LXFJGB (X) - Inconsistent in testing between samples.
- Z8DYLG (X) - Inconsistent in testing between samples.

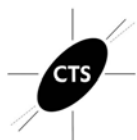
Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA49 <i>Pinot Grigio</i>			Sample SA50 <i>Sauvignon Blanc</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Please specify method used	40.000	4.243	-0.85	40.500	6.364	2.27	2/2
Ripper Method	42.467	3.343	1.61	42.554	3.968	4.32	30/31
Aeration Oxidation (AO) Method	40.163	4.108	-0.69	36.853	3.611	-1.38	27/28
Segmented Flow Analyzer	43.159	4.985	2.31	37.516	5.222	-0.71	8/8
Enzymatic Method	38.920	3.896	-1.93	34.235	4.055	-4.00	10/10
Colorimetric Analyzer	40.368	4.118	-0.49	35.938	4.535	-2.29	14/15
Flow Injection Analysis	39.833	3.474	-1.02	37.250	2.068	-0.98	6/6
FTIR	38.492	2.951	-2.36	35.992	2.909	-2.24	6/6



Analysis 903
Free Sulfur Dioxide





Analysis 904
Titratable Acidity

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2BTTZT		4.985	-0.390	-1.25	5.005	-0.310	-1.24
2LQUEH		5.165	-0.210	-0.68	5.110	-0.205	-0.82
37DKCT	*	4.650	-0.725	-2.33	4.650	-0.665	-2.65
37UYFW		5.590	0.215	0.69	5.465	0.150	0.60
3E7X8M		5.100	-0.275	-0.88	5.100	-0.215	-0.86
3NCXMF		5.310	-0.065	-0.21	5.150	-0.165	-0.66
3X3HQT		5.345	-0.030	-0.10	5.390	0.075	0.30
42FFXF	*	6.175	0.800	2.57	5.830	0.515	2.06
4B3GEP		6.000	0.625	2.01	5.750	0.435	1.74
64YUYU		5.409	0.034	0.11	5.534	0.219	0.87
6LWDQB		5.355	-0.020	-0.07	5.310	-0.005	-0.02
8UNCGM	*	5.600	0.225	0.72	5.680	0.365	1.46
8XLVHL		5.425	0.050	0.16	5.275	-0.040	-0.16
9AAH2L		5.090	-0.285	-0.92	5.100	-0.215	-0.86
9BPEUL		5.300	-0.075	-0.24	5.400	0.085	0.34
9EPPPL		5.750	0.375	1.20	5.600	0.285	1.14
9FYU3A		5.700	0.325	1.04	5.600	0.285	1.14
9X6YQL		4.760	-0.615	-1.98	4.795	-0.520	-2.07
A3Q9FB		5.300	-0.075	-0.24	5.200	-0.115	-0.46
A44Z77		5.725	0.349	1.12	5.629	0.314	1.25
AAARGP		5.125	-0.250	-0.80	5.070	-0.245	-0.98
AEME99		5.800	0.425	1.36	5.600	0.285	1.14
AEPZ6N		5.300	-0.075	-0.24	5.300	-0.015	-0.06
AMYNHM		5.300	-0.075	-0.24	5.300	-0.015	-0.06
AZ3Y4N		5.100	-0.275	-0.88	5.100	-0.215	-0.86
B9BVJE		5.972	0.597	1.92	5.764	0.449	1.79
BD8HEN		5.400	0.025	0.08	5.450	0.135	0.54
CNZLVM		6.025	0.650	2.09	5.840	0.525	2.10
CPC9FM		5.595	0.220	0.71	5.620	0.305	1.22
D2448M		5.515	0.140	0.45	5.320	0.005	0.02
DAXCRD		5.010	-0.365	-1.17	5.105	-0.210	-0.84
DKJD8M		5.000	-0.375	-1.21	5.000	-0.315	-1.26
DKK4MH		5.100	-0.275	-0.88	5.100	-0.215	-0.86
DNDCHC		5.775	0.400	1.28	5.550	0.235	0.94
EM2XRH		5.078	-0.298	-0.96	5.094	-0.221	-0.88



Analysis 904
Titratable Acidity

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
ENFJ46		5.220	-0.155	-0.50	5.205	-0.110	-0.44
F44Y2A		5.370	-0.005	-0.02	5.405	0.090	0.36
FNAHZH		5.290	-0.085	-0.27	5.235	-0.080	-0.32
FP4E4H		5.300	-0.075	-0.24	5.225	-0.090	-0.36
FXEGPJ	X	5.555	0.180	0.58	5.115	-0.200	-0.80
FXXJLJ		5.660	0.285	0.91	5.470	0.155	0.62
G34DRF		5.600	0.225	0.72	5.500	0.185	0.74
H662JA		5.650	0.275	0.88	5.450	0.135	0.54
HFRYAF		5.700	0.325	1.04	5.600	0.285	1.14
HN6NB9		5.100	-0.275	-0.88	5.100	-0.215	-0.86
HR6Z79		4.950	-0.425	-1.37	5.020	-0.295	-1.18
HRGY2H		5.245	-0.130	-0.42	5.210	-0.105	-0.42
HTGPFD		5.400	0.025	0.08	5.300	-0.015	-0.06
HXAYHY		4.960	-0.415	-1.33	5.090	-0.225	-0.90
HYKWVF		5.350	-0.025	-0.08	5.425	0.110	0.44
J7GXNE		5.150	-0.225	-0.72	5.250	-0.065	-0.26
J9MHEZ		5.250	-0.125	-0.40	5.225	-0.090	-0.36
JLWVVZ		5.440	0.065	0.21	5.480	0.165	0.66
K6ERH6		5.175	-0.200	-0.64	5.100	-0.215	-0.86
KPMRVB		5.360	-0.015	-0.05	5.260	-0.055	-0.22
KYCFTY	*	4.590	-0.785	-2.52	4.720	-0.595	-2.37
L9D3E6		5.825	0.450	1.44	5.610	0.295	1.18
LKQMFC	*	5.910	0.535	1.72	5.575	0.260	1.04
LXFJGB		5.190	-0.185	-0.60	5.110	-0.205	-0.82
LY8HV9		5.185	-0.190	-0.61	4.980	-0.335	-1.34
MQVJ2X		5.100	-0.275	-0.88	5.200	-0.115	-0.46
MT22ZT		5.800	0.425	1.36	5.600	0.285	1.14
N2NMFB		5.210	-0.165	-0.53	5.210	-0.105	-0.42
NZG8A6		5.115	-0.260	-0.84	5.010	-0.305	-1.22
NZVTKR		5.050	-0.325	-1.04	5.100	-0.215	-0.86
PAH6G6		5.150	-0.225	-0.72	5.050	-0.265	-1.06
PALEN6		5.900	0.525	1.69	5.700	0.385	1.54
PRG2VU		5.300	-0.075	-0.24	5.200	-0.115	-0.46
Q44VKT		5.100	-0.275	-0.88	5.100	-0.215	-0.86
Q9GE2A		5.100	-0.275	-0.88	5.150	-0.165	-0.66



Analysis 904
Titratable Acidity

Table with 8 columns: WebCode, Data Flag, Lab Mean, Diff from Grand Mean, CPV (for Sample SA49); Lab Mean, Diff from Grand Mean, CPV (for Sample SA50). Rows include various codes like Q9WVW4, QCHF4T, etc.



Analysis 904
Titratable Acidity

Grand Means		Summary Statistics	
	5.3753 g/L as tartaric acid		5.3149 g/L as tartaric acid
Stnd Dev Btwn Labs			
	0.3113 g/L as tartaric acid		0.2506 g/L as tartaric acid
Statistics based on 101 of 105 reporting participants			

Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc

Comments on Assigned Data Flags for Test #904

ZUPYTT (X) - Data for sample SA49 are high.

WGUGPX (X) - Data for sample SA50 are high.

WX6XWZ (X) - Data for sample SA50 are low. Inconsistent within the determinations of sample SA49.

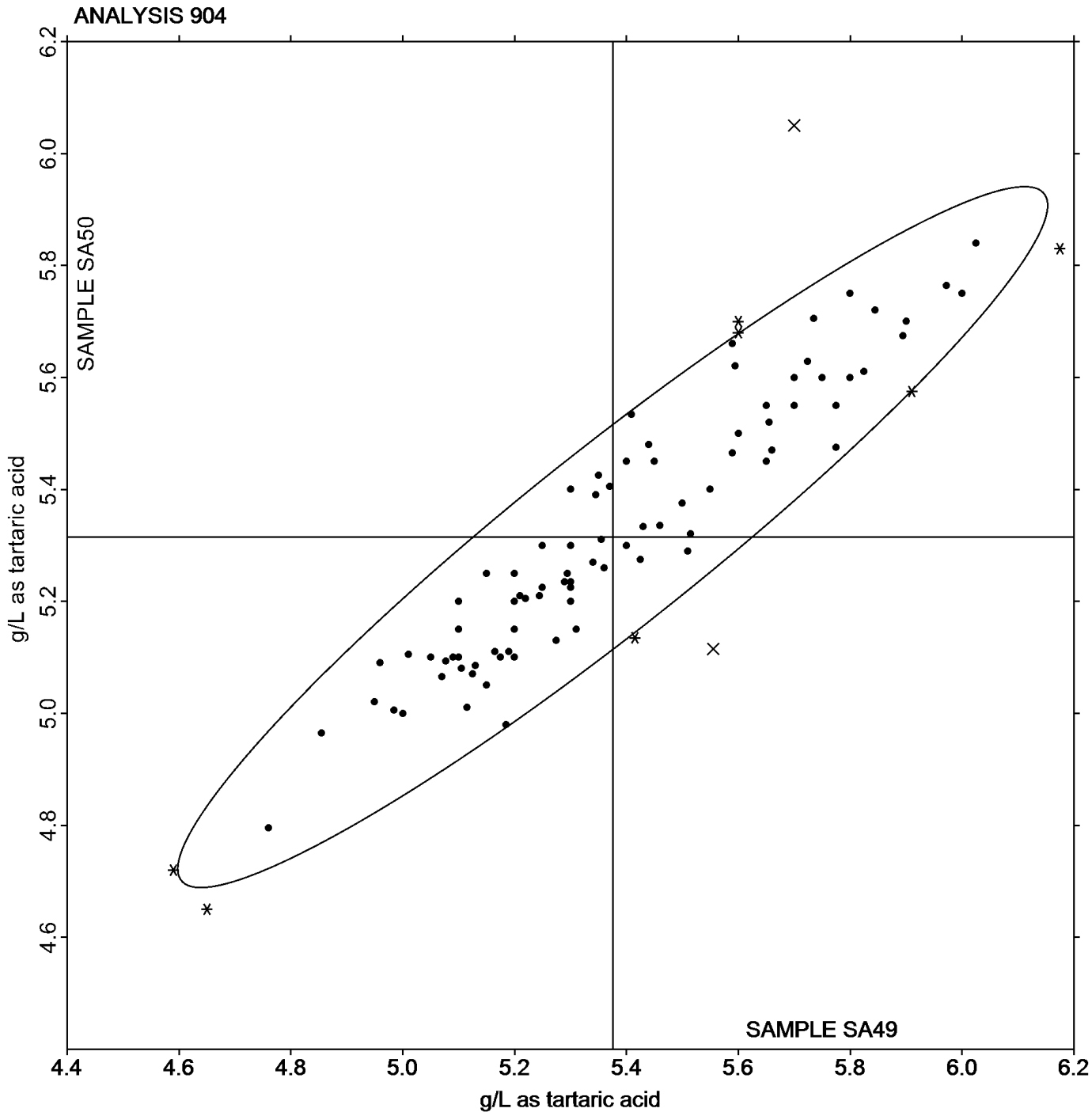
FXEGPJ (X) - Inconsistent in testing between samples.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA49 <i>Pinot Grigio</i>			Sample SA50 <i>Sauvignon Blanc</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Please specify method	5.200	0.000	-0.175	5.200	0.000	-0.115	1/1
Autotitration	5.389	0.287	0.013	5.314	0.228	-0.001	70/72
Manual Titration	5.374	0.426	-0.002	5.317	0.354	0.002	19/20
FTIR	5.298	0.262	-0.077	5.346	0.205	0.031	10/11
Segmented Flow Analyzer	5.415	0.000	0.040	5.135	0.000	-0.180	1/1



Analysis 904
Titratable Acidity





ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #075

Analysis 905 Volatile Acidity

Fall 2023

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2BTTZT		0.2100	0.0185	0.63	0.2700	0.0334	1.09
2LQUEH		0.1910	-0.0005	-0.02	0.2375	0.0009	0.03
37DKCT		0.2340	0.0425	1.44	0.2700	0.0334	1.09
37UYFW		0.1300	-0.0615	-2.08	0.1700	-0.0666	-2.17
3E7X8M		0.1600	-0.0315	-1.06	0.2000	-0.0366	-1.19
3NCXMF		0.1800	-0.0115	-0.39	0.2200	-0.0166	-0.54
3X3HQT	*	0.2600	0.0685	2.31	0.2850	0.0484	1.58
42FFXF		0.1830	-0.0085	-0.29	0.2345	-0.0021	-0.07
4B3GEP		0.1935	0.0020	0.07	0.2370	0.0004	0.01
64YUYU		0.1940	0.0025	0.09	0.2300	-0.0066	-0.21
6LWDQB		0.1900	-0.0015	-0.05	0.2300	-0.0066	-0.21
8UNCGM		0.1300	-0.0615	-2.08	0.1800	-0.0566	-1.84
8XLVHL	X	0.3100	0.1185	4.00	0.2950	0.0584	1.90
9AAH2L		0.1800	-0.0115	-0.39	0.2350	-0.0016	-0.05
9BPEUL		0.1800	-0.0115	-0.39	0.2200	-0.0166	-0.54
9EPPPL		0.1450	-0.0465	-1.57	0.1850	-0.0516	-1.68
9FYU3A		0.2100	0.0185	0.63	0.2500	0.0134	0.44
9X6YQL	*	0.2550	0.0635	2.15	0.2800	0.0434	1.41
A3Q9FB		0.2095	0.0180	0.61	0.2595	0.0229	0.75
A44Z77		0.2550	0.0635	2.15	0.2950	0.0584	1.90
AAARGP		0.1600	-0.0315	-1.06	0.2250	-0.0116	-0.38
AEME99	X	0.2100	0.0185	0.63	0.2000	-0.0366	-1.19
AEPZ6N		0.1800	-0.0115	-0.39	0.2300	-0.0066	-0.21
AMYNHM	X	0.2500	0.0585	1.98	0.3250	0.0884	2.88
AZ3Y4N	*	0.1700	-0.0215	-0.73	0.1900	-0.0466	-1.52
B9BVJE		0.1850	-0.0065	-0.22	0.2250	-0.0116	-0.38
BD8HEN		0.1350	-0.0565	-1.91	0.1800	-0.0566	-1.84
CNZLVM		0.1500	-0.0415	-1.40	0.1850	-0.0516	-1.68
CPC9FM		0.1910	-0.0005	-0.02	0.2475	0.0109	0.36
D2448M		0.1700	-0.0215	-0.73	0.2100	-0.0266	-0.87
DAXCRD		0.2000	0.0085	0.29	0.2450	0.0084	0.27
DKJD8M	*	0.2650	0.0735	2.48	0.3050	0.0684	2.23
DKK4MH		0.2100	0.0185	0.63	0.2550	0.0184	0.60
DNDCHC		0.2450	0.0535	1.81	0.3050	0.0684	2.23
EM2XRH		0.1850	-0.0065	-0.22	0.2350	-0.0016	-0.05



ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #075

Analysis 905 Volatile Acidity

Fall 2023

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
ENFJ46		0.1400	-0.0515	-1.74	0.1900	-0.0466	-1.52
FNAHZH		0.1800	-0.0115	-0.39	0.2200	-0.0166	-0.54
FP4E4H		0.1750	-0.0165	-0.56	0.2100	-0.0266	-0.87
FXEGPJ		0.1800	-0.0115	-0.39	0.2400	0.0034	0.11
FXKJLJ	X	0.1750	-0.0165	-0.56	0.1750	-0.0616	-2.00
G34DRF		0.1800	-0.0115	-0.39	0.2150	-0.0216	-0.70
H662JA		0.1700	-0.0215	-0.73	0.2200	-0.0166	-0.54
HFRYAF		0.2100	0.0185	0.63	0.2600	0.0234	0.76
HN6NB9		0.2100	0.0185	0.63	0.2600	0.0234	0.76
HR6Z79	X	0.3100	0.1185	4.00	0.3600	0.1234	4.02
HRGY2H		0.2200	0.0285	0.96	0.2750	0.0384	1.25
HXAYHY		0.1900	-0.0015	-0.05	0.2300	-0.0066	-0.21
HYKWVF		0.1650	-0.0265	-0.89	0.2000	-0.0366	-1.19
J7GXNE		0.1650	-0.0265	-0.89	0.2150	-0.0216	-0.70
JLWVVZ	X	0.2800	0.0885	2.99	0.2900	0.0534	1.74
K6ERH6		0.1850	-0.0065	-0.22	0.2400	0.0034	0.11
KPMRVB		0.1810	-0.0105	-0.35	0.2255	-0.0111	-0.36
KYCFTY	X	0.1850	-0.0065	-0.22	0.1950	-0.0416	-1.35
L9D3E6		0.1840	-0.0075	-0.25	0.2185	-0.0181	-0.59
LKQMFC		0.2000	0.0085	0.29	0.2400	0.0034	0.11
LXFJGB		0.1700	-0.0215	-0.73	0.2100	-0.0266	-0.87
LY8HV9		0.1950	0.0035	0.12	0.2350	-0.0016	-0.05
MQVJ2X	X	0.1000	-0.0915	-3.09	0.1200	-0.1166	-3.79
MT22ZT		0.1950	0.0035	0.12	0.2400	0.0034	0.11
N2NMF8		0.2100	0.0185	0.63	0.2600	0.0234	0.76
NZG8A6		0.1950	0.0035	0.12	0.2410	0.0044	0.14
NZVTKR		0.1550	-0.0365	-1.23	0.1950	-0.0416	-1.35
PAH6G6		0.1750	-0.0165	-0.56	0.2350	-0.0016	-0.05
PALEN6		0.2150	0.0235	0.79	0.2550	0.0184	0.60
PRG2VU		0.2000	0.0085	0.29	0.2500	0.0134	0.44
Q44VKT		0.1600	-0.0315	-1.06	0.2000	-0.0366	-1.19
Q9GE2A		0.2150	0.0235	0.79	0.2600	0.0234	0.76
Q9WVW4		0.1700	-0.0215	-0.73	0.2050	-0.0316	-1.03
QCHF4T		0.1930	0.0015	0.05	0.2470	0.0104	0.34
QQ328Y		0.2250	0.0335	1.13	0.2700	0.0334	1.09



Analysis 905
Volatile Acidity

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
QQHGGU		0.1543	-0.0372	-1.26	0.2110	-0.0256	-0.83
QVYN6T		0.1850	-0.0065	-0.22	0.2350	-0.0016	-0.05
R838FT		0.2100	0.0185	0.63	0.2350	-0.0016	-0.05
RGUPU2		0.2000	0.0085	0.29	0.2300	-0.0066	-0.21
RYDJJ6		0.1600	-0.0315	-1.06	0.2250	-0.0116	-0.38
TA6RGX		0.1750	-0.0165	-0.56	0.2150	-0.0216	-0.70
TAQ3F8		0.2100	0.0185	0.63	0.2600	0.0234	0.76
TCWN7R	X	0.1400	-0.0515	-1.74	0.1550	-0.0816	-2.65
TTYHK6		0.1750	-0.0165	-0.56	0.2350	-0.0016	-0.05
U732W6		0.2400	0.0485	1.64	0.2800	0.0434	1.41
UDKJ67		0.2000	0.0085	0.29	0.2500	0.0134	0.44
UPHBW6		0.2000	0.0085	0.29	0.2500	0.0134	0.44
URHQ2L	X	0.2600	0.0685	2.31	0.3400	0.1034	3.36
VKF2XM		0.1800	-0.0115	-0.39	0.2450	0.0084	0.27
VRY436		0.2000	0.0085	0.29	0.2500	0.0134	0.44
W4DEE2	*	0.2800	0.0885	2.99	0.3300	0.0934	3.04
W4P9U2		0.1850	-0.0065	-0.22	0.2350	-0.0016	-0.05
WFL7XZ		0.1620	-0.0295	-1.00	0.2150	-0.0216	-0.70
WGUGPX		0.1750	-0.0165	-0.56	0.2050	-0.0316	-1.03
WX6XWZ	X	0.2000	0.0085	0.29	0.2000	-0.0366	-1.19
WYX7Q2		0.1800	-0.0115	-0.39	0.2050	-0.0316	-1.03
XNTKUM		0.1850	-0.0065	-0.22	0.2400	0.0034	0.11
XPM462		0.2250	0.0335	1.13	0.2900	0.0534	1.74
XXYATR		0.2050	0.0135	0.46	0.2400	0.0034	0.11
Y2V4EY		0.2480	0.0565	1.91	0.2940	0.0574	1.87
YEJFHW		0.1750	-0.0165	-0.56	0.2050	-0.0316	-1.03
YL2N7T	*	0.2150	0.0235	0.79	0.2850	0.0484	1.58
YTLLW2		0.2250	0.0335	1.13	0.2600	0.0234	0.76
Z4DVUU		0.1920	0.0005	0.02	0.2430	0.0064	0.21
Z8DYLK		0.1950	0.0035	0.12	0.2400	0.0034	0.11
ZGLQXW		0.1500	-0.0415	-1.40	0.1950	-0.0416	-1.35
ZUPYTT		0.2050	0.0135	0.46	0.2500	0.0134	0.44
ZZF93R		0.1800	-0.0115	-0.39	0.2250	-0.0116	-0.38



Analysis 905
Volatile Acidity

Grand Means		Summary Statistics	
	0.19147 g/L as acetic acid		0.23659 g/L as acetic acid
Std Dev Btwn Labs			
	0.02961 g/L as acetic acid		0.03073 g/L as acetic acid
Statistics based on 92 of 103 reporting participants			

Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc

Comments on Assigned Data Flags for Test #905

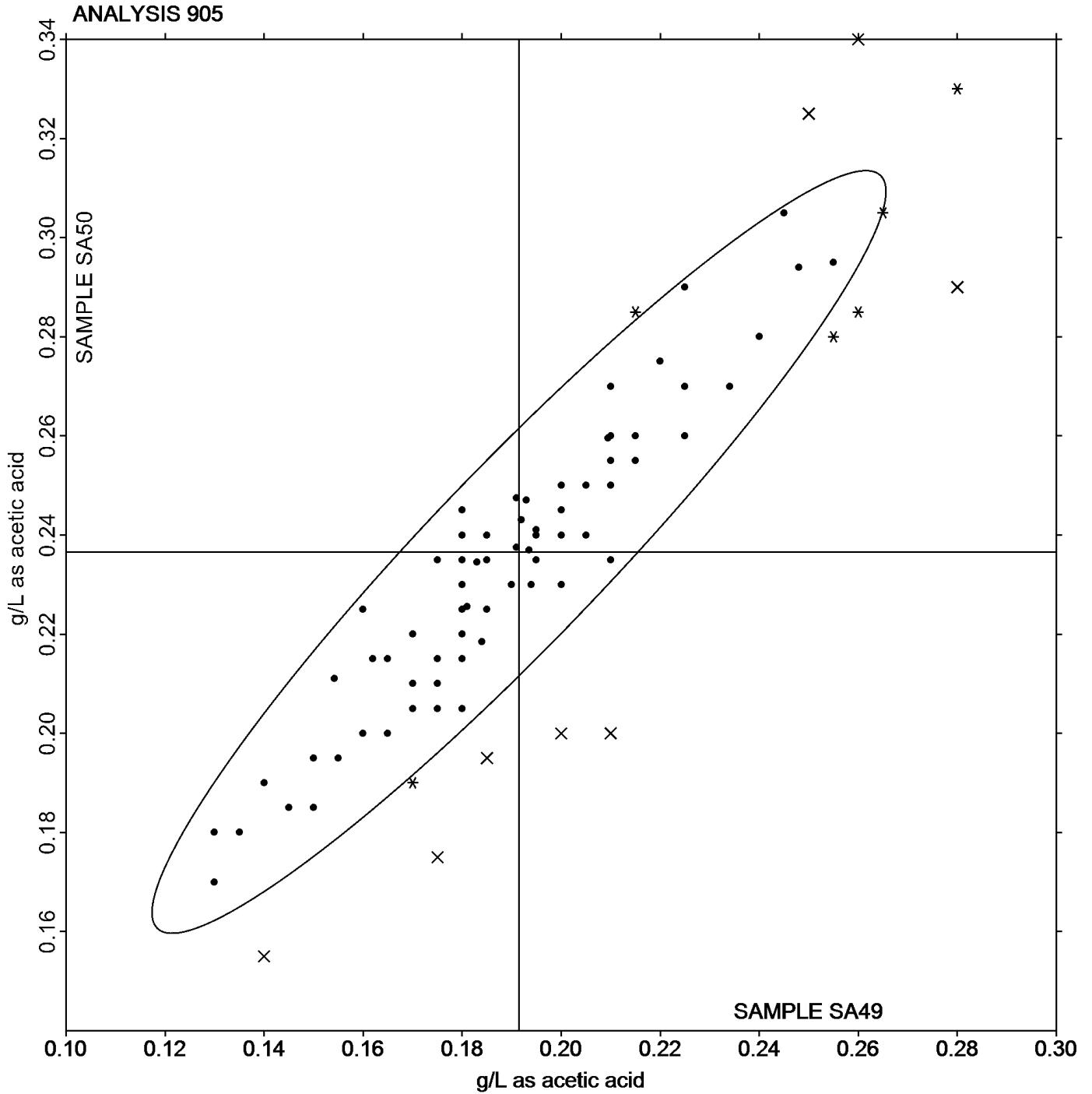
- AMYNHM (X) - Inconsistent in testing, data for sample SA50 are high.
- FXKJLJ (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample SA49.
- 8XLVHL (X) - Data for sample SA49 are high. Inconsistent within the determinations of both samples.
- HR6Z79 (X) - Data for both samples are high. Possible Systematic Error.
- WX6XWZ (X) - Inconsistent in testing between samples.
- AEME99 (X) - Inconsistent in testing between samples.
- URHQ2L (X) - Data for sample SA50 are high.
- MQVJ2X (X) - Data for both samples are low. Possible Systematic Error.
- TCWN7R (X) - Inconsistent in testing between samples.
- KYCFTY (X) - Inconsistent in testing between samples.
- JLWVVZ (X) - Inconsistent in testing, data for sample SA49 are high.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA49 <i>Pinot Grigio</i>			Sample SA50 <i>Sauvignon Blanc</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Please specify method	0.225	0.000	0.0335	0.270	0.000	0.0334	1/1
Cash Still method	0.251	0.016	0.0599	0.285	0.018	0.0484	3/6
Enzymatic method	0.190	0.025	-0.0019	0.236	0.027	-0.0003	73/76
GC							0/1
Colorimetric Analysis	0.218	0.053	0.0269	0.265	0.056	0.0284	3/3
Seg. Flow / Colorimetric Analyzer	0.195	0.028	0.0035	0.245	0.014	0.0084	2/3
FTIR	0.175	0.037	-0.0161	0.211	0.033	-0.0261	10/13



Analysis 905
Volatile Acidity





Analysis 906
Specific Gravity

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2BTTZT		0.9936	0.0001	0.09	0.9927	-0.0001	-0.12
2LQUEH		0.9935	0.0000	0.05	0.9928	0.0000	-0.05
37DKCT		0.9935	0.0000	0.03	0.9925	-0.0003	-0.37
37UYFW		0.9936	0.0001	0.11	0.9928	0.0000	0.04
3E7X8M		0.9938	0.0003	0.38	0.9926	-0.0002	-0.31
3NCXMF		0.9937	0.0002	0.22	0.9929	0.0001	0.14
3X3HQT		0.9933	-0.0002	-0.20	0.9926	-0.0002	-0.24
42FFXF		0.9929	-0.0006	-0.73	0.9927	-0.0001	-0.12
4B3GEP		0.9937	0.0002	0.21	0.9929	0.0001	0.11
64YUYU		0.9919	-0.0016	-1.84	0.9912	-0.0016	-2.05
6LWDQB		0.9929	-0.0005	-0.63	0.9921	-0.0007	-0.82
8UNCGM	X	0.9936	0.0001	0.16	0.9964	0.0036	4.54
8XLVHL		0.9927	-0.0008	-0.96	0.9920	-0.0008	-1.05
9BPEUL		0.9936	0.0001	0.12	0.9928	0.0000	0.04
9EPPPL	X	0.9973	0.0038	4.42	0.9964	0.0036	4.43
9FYU3A		0.9935	0.0000	0.02	0.9929	0.0001	0.08
A3Q9FB		0.9936	0.0002	0.19	0.9929	0.0001	0.11
A44Z77		0.9935	0.0000	0.06	0.9941	0.0013	1.68
AAARGP		0.9935	0.0000	-0.03	0.9928	0.0000	-0.06
AEME99		0.9938	0.0003	0.32	0.9931	0.0003	0.32
AMYNHM		0.9936	0.0001	0.10	0.9928	0.0000	0.00
AZ3Y4N		0.9930	-0.0005	-0.55	0.9930	0.0002	0.26
BD8HEN	*	0.9962	0.0027	3.13	0.9955	0.0027	3.31
CNZLVM	X	0.9919	-0.0016	-1.83	0.9929	0.0001	0.15
CPC9FM		0.9937	0.0002	0.25	0.9929	0.0001	0.12
D2448M	*	0.9910	-0.0025	-2.90	0.9910	-0.0018	-2.24
DAXCRD		0.9934	-0.0001	-0.09	0.9927	-0.0001	-0.18
DKJD8M		0.9936	0.0001	0.15	0.9929	0.0001	0.13
DKK4MH		0.9935	0.0000	-0.03	0.9928	0.0000	-0.01
DNDCHC		0.9943	0.0009	1.01	0.9938	0.0010	1.29
EM2XRH		0.9933	-0.0002	-0.26	0.9926	-0.0002	-0.31
ENFJ46		0.9940	0.0005	0.62	0.9930	0.0002	0.26
FNAHZH		0.9935	0.0000	0.03	0.9928	0.0000	0.01
FP4E4H		0.9938	0.0003	0.38	0.9930	0.0002	0.19
FXEGPJ		0.9934	-0.0001	-0.09	0.9926	-0.0002	-0.24



Analysis 906
Specific Gravity

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
FXKJLJ		0.9938	0.0003	0.35	0.9931	0.0003	0.39
G34DRF		0.9935	0.0001	0.08	0.9928	0.0000	-0.02
H662JA		0.9918	-0.0016	-1.90	0.9911	-0.0017	-2.14
HAK98A		0.9937	0.0002	0.22	0.9928	0.0000	0.03
HFRYAF		0.9937	0.0002	0.27	0.9931	0.0003	0.38
HN6NB9		0.9935	0.0001	0.08	0.9928	0.0000	-0.02
HR6Z79		0.9936	0.0001	0.15	0.9928	0.0000	0.01
HRGY2H		0.9936	0.0001	0.15	0.9928	0.0000	0.01
HTGPFD		0.9935	0.0001	0.08	0.9928	0.0000	0.04
HXAYHY		0.9932	-0.0003	-0.32	0.9924	-0.0004	-0.49
J7GXNE		0.9915	-0.0020	-2.31	0.9910	-0.0018	-2.30
J9MHEZ		0.9938	0.0003	0.37	0.9938	0.0010	1.24
K6ERH6	*	0.9906	-0.0029	-3.37	0.9899	-0.0029	-3.67
KPMRVB		0.9943	0.0008	0.97	0.9928	0.0000	-0.06
KYCFTY	X	0.9903	-0.0032	-3.77	0.9930	0.0002	0.26
LKQMFC	X	0.9972	0.0037	4.36	0.9965	0.0037	4.62
LXFJGB		0.9937	0.0003	0.30	0.9929	0.0001	0.15
LY8HV9		0.9937	0.0003	0.29	0.9930	0.0002	0.19
MQVJ2X	X	1.4000	0.4065	476.08	1.7000	0.7072	881.47
MT22ZT		0.9935	0.0001	0.07	0.9928	0.0000	-0.01
NZG8A6		0.9936	0.0001	0.15	0.9928	0.0000	0.01
NZVTKR		0.9932	-0.0003	-0.32	0.9927	-0.0001	-0.12
PAH6G6		0.9933	-0.0002	-0.20	0.9924	-0.0004	-0.49
PALEN6		0.9949	0.0014	1.67	0.9942	0.0014	1.69
Q44VKT		0.9936	0.0001	0.15	0.9929	0.0001	0.13
QCHF4T		0.9934	-0.0001	-0.09	0.9927	-0.0001	-0.12
QQ328Y		0.9936	0.0001	0.15	0.9929	0.0001	0.07
QQHGGU		0.9915	-0.0020	-2.31	0.9908	-0.0020	-2.49
QVYN6T		0.9944	0.0009	1.09	0.9936	0.0008	1.00
R838FT		0.9941	0.0006	0.68	0.9932	0.0004	0.50
RGUPU2		0.9936	0.0001	0.09	0.9927	-0.0001	-0.12
RYDJJ6		0.9942	0.0008	0.90	0.9934	0.0006	0.74
TA6RGX	X	1.0117	0.0182	21.34	0.9913	-0.0015	-1.93
TAQ3F8		0.9953	0.0018	2.13	0.9941	0.0013	1.61
TCWN7R		0.9936	0.0001	0.15	0.9929	0.0001	0.13



Analysis 906
Specific Gravity

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
TTYHK6		0.9935	0.0000	0.05	0.9928	0.0000	-0.03
U732W6		0.9917	-0.0018	-2.08	0.9909	-0.0019	-2.36
UPHBW6		0.9918	-0.0017	-2.02	0.9912	-0.0016	-2.05
URHQ2L		0.9933	-0.0001	-0.15	0.9925	-0.0003	-0.35
VKF2XM	*	0.9914	-0.0021	-2.43	0.9919	-0.0009	-1.12
VRY436		0.9933	-0.0002	-0.20	0.9928	0.0000	0.01
W4DEE2	X	0.9934	0.0000	-0.05	0.9906	-0.0022	-2.79
W4P9U2		0.9935	0.0000	-0.03	0.9927	-0.0001	-0.12
WFL7XZ		0.9929	-0.0006	-0.69	0.9922	-0.0006	-0.70
WX6XWZ		0.9930	-0.0005	-0.55	0.9920	-0.0008	-0.99
WYX7Q2		0.9936	0.0001	0.10	0.9928	0.0000	0.02
XNTKUM		0.9925	-0.0010	-1.14	0.9917	-0.0011	-1.43
XPM462		0.9935	0.0000	0.04	0.9927	-0.0001	-0.09
XXYATR		0.9945	0.0010	1.14	0.9936	0.0008	1.00
Y2V4EY		0.9935	0.0001	0.08	0.9928	0.0000	-0.01
YEJFHW		0.9937	0.0002	0.24	0.9928	0.0000	0.04
YL2N7T		0.9935	0.0000	0.03	0.9926	-0.0002	-0.24
Z4DVUU		0.9945	0.0010	1.20	0.9937	0.0009	1.07
Z8DYLG		0.9937	0.0002	0.24	0.9929	0.0001	0.15
ZUPYTT		0.9935	0.0001	0.08	0.9928	0.0000	0.04
ZZF93R		0.9936	0.0001	0.15	0.9928	0.0000	0.01

Grand Means		Summary Statistics	
0.99347	sp gr 20/20 C	0.99279	sp gr 20/20 C
Std Dev Btw Labs			
0.00085	sp gr 20/20 C	0.00080	sp gr 20/20 C
Statistics based on 83 of 91 reporting participants			

Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc



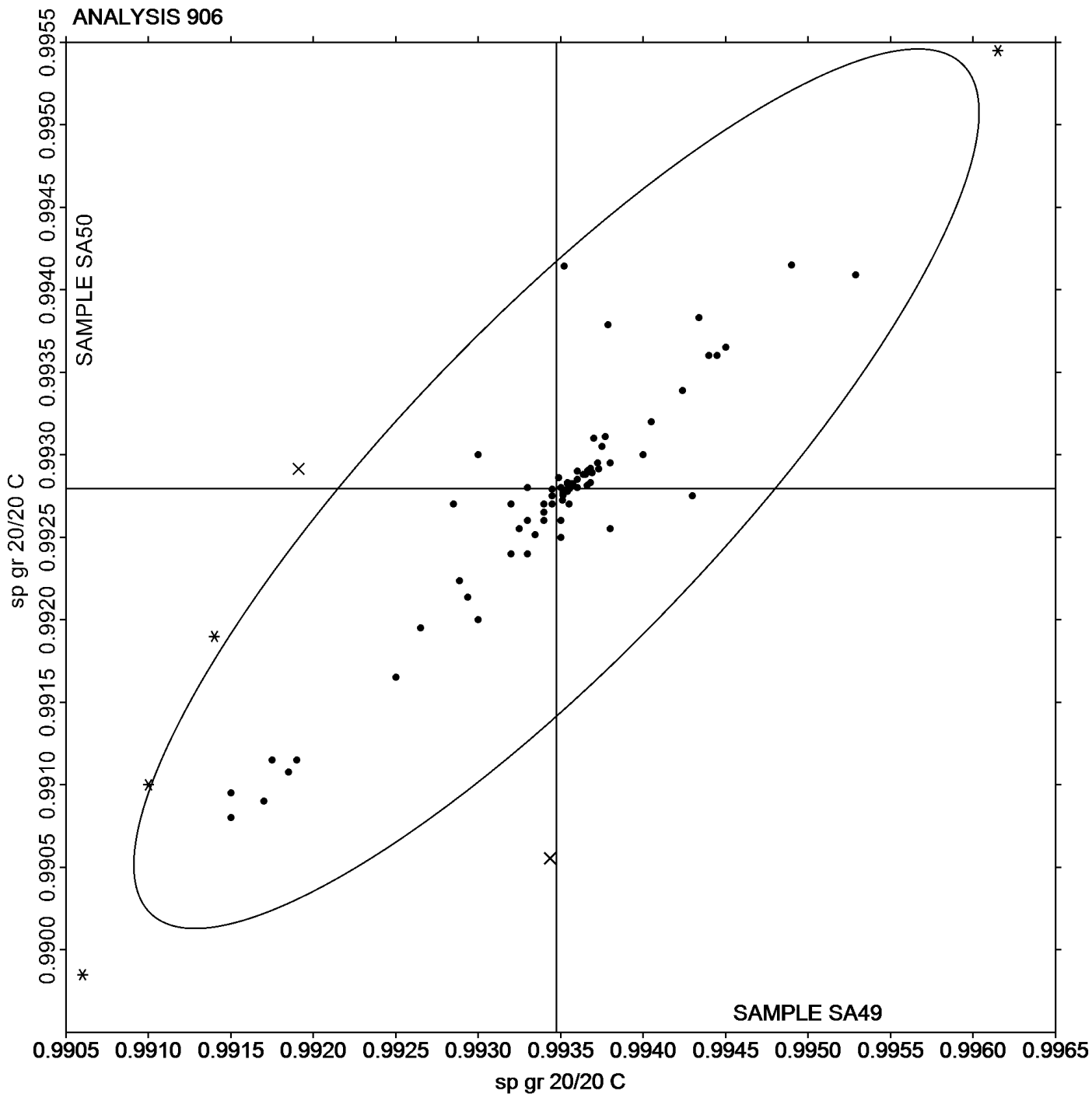
**Analysis 906
Specific Gravity**

Comments on Assigned Data Flags for Test #906

- W4DEE2 (X) - Data for sample SA50 are low.
- TA6RGX (X) - Data for sample SA49 are high.
- 9EPPPL (X) - Data for both samples are high.
- 8UNCGM (X) - Data for sample SA50 are high. Inconsistent within the determinations of sample SA50.
- LKQMFC (X) - Data for both samples are high.
- CNZLVM (X) - Inconsistent in testing between samples.
- MQVJ2X (X) - Extreme data.
- KYCFTY (X) - Data for sample SA49 are low.



Analysis 906
Specific Gravity





ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #075

Analysis 907

Fall 2023

pH

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2BTTZT		3.520	0.025	0.81	3.390	0.025	0.76
2LQUEH		3.495	0.000	-0.01	3.355	-0.010	-0.31
37DKCT		3.530	0.035	1.14	3.410	0.045	1.37
37UYFW		3.435	-0.060	-1.99	3.310	-0.055	-1.68
3E7X8M		3.475	-0.020	-0.67	3.345	-0.020	-0.61
3NCXMF		3.510	0.015	0.48	3.385	0.020	0.61
3X3HQT	X	3.465	-0.030	-1.00	3.385	0.020	0.61
42FFXF		3.490	-0.005	-0.18	3.350	-0.015	-0.46
4B3GEP	X	3.475	-0.020	-0.67	3.300	-0.065	-1.98
64YUYU	*	3.485	-0.010	-0.34	3.395	0.030	0.91
6LWDQB		3.485	-0.010	-0.34	3.345	-0.020	-0.61
8UNCGM	*	3.515	0.020	0.64	3.425	0.060	1.82
8XLVHL		3.480	-0.015	-0.51	3.375	0.010	0.30
9AAH2L	X	3.550	0.055	1.80	3.365	0.000	0.00
9BPEUL		3.480	-0.015	-0.51	3.350	-0.015	-0.46
9EPPPL		3.510	0.015	0.48	3.380	0.015	0.45
9FYU3A		3.470	-0.025	-0.84	3.340	-0.025	-0.76
9X6YQL		3.495	0.000	-0.01	3.335	-0.030	-0.92
A3Q9FB		3.485	-0.010	-0.34	3.380	0.015	0.45
A44Z77	X	3.440	-0.055	-1.82	3.366	0.001	0.03
AAARGP		3.520	0.025	0.81	3.385	0.020	0.61
AEME99		3.520	0.025	0.81	3.365	0.000	0.00
AEPZ6N		3.470	-0.025	-0.84	3.340	-0.025	-0.76
AMYNHM		3.480	-0.015	-0.51	3.340	-0.025	-0.76
AZ3Y4N		3.540	0.045	1.47	3.410	0.045	1.37
B9BVJE		3.530	0.035	1.14	3.390	0.025	0.76
BD8HEN		3.475	-0.020	-0.67	3.355	-0.010	-0.31
CNZLVM	*	3.420	-0.075	-2.48	3.305	-0.060	-1.83
CPC9FM		3.470	-0.025	-0.84	3.335	-0.030	-0.92
D2448M	*	3.450	-0.045	-1.50	3.350	-0.015	-0.46
DAXCRD		3.480	-0.015	-0.51	3.355	-0.010	-0.31
DKJD8M		3.510	0.015	0.48	3.370	0.005	0.15
DKK4MH		3.510	0.015	0.48	3.380	0.015	0.45
DNDCHC		3.450	-0.045	-1.50	3.320	-0.045	-1.37
EM2XRH		3.445	-0.050	-1.66	3.310	-0.055	-1.68



ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #075

Analysis 907

Fall 2023

pH

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
ENFJ46		3.500	0.005	0.15	3.380	0.015	0.45
F44Y2A	M	No data reported for this sample			3.355	-0.010	-0.31
FNAHZH		3.500	0.005	0.15	3.370	0.005	0.15
FP4E4H		3.475	-0.020	-0.67	3.355	-0.010	-0.31
FXEGPJ		3.530	0.035	1.14	3.390	0.025	0.76
FXXJLJ		3.480	-0.015	-0.51	3.350	-0.015	-0.46
G34DRF		3.515	0.020	0.64	3.375	0.010	0.30
H662JA	*	3.525	0.030	0.97	3.360	-0.005	-0.16
HFRYAF		3.440	-0.055	-1.82	3.300	-0.065	-1.98
HN6NB9		3.510	0.015	0.48	3.375	0.010	0.30
HR6Z79	*	3.530	0.035	1.14	3.430	0.065	1.97
HRGY2H		3.490	-0.005	-0.18	3.360	-0.005	-0.16
HXAYHY		3.470	-0.025	-0.84	3.340	-0.025	-0.76
HYKWVF		3.515	0.020	0.64	3.415	0.050	1.52
J7GXNE		3.515	0.020	0.64	3.375	0.010	0.30
J9MHEZ	X	3.400	-0.095	-3.14	3.285	-0.080	-2.44
JLWVVZ		3.460	-0.035	-1.17	3.340	-0.025	-0.76
K6ERH6		3.525	0.030	0.97	3.400	0.035	1.06
KPMRVB		3.494	-0.002	-0.06	3.362	-0.003	-0.09
KYCFTY		3.560	0.065	2.12	3.420	0.055	1.67
L9D3E6		3.515	0.020	0.64	3.385	0.020	0.61
LKQMFC	X	3.395	-0.100	-3.31	3.244	-0.121	-3.68
LXFJGB		3.480	-0.015	-0.51	3.355	-0.010	-0.31
LY8HV9	X	3.385	-0.110	-3.64	3.260	-0.105	-3.20
MQVJ2X		3.490	-0.005	-0.18	3.350	-0.015	-0.46
MT22ZT		3.510	0.015	0.48	3.370	0.005	0.15
N2NMFB		3.490	-0.005	-0.18	3.360	-0.005	-0.16
NZG8A6		3.490	-0.005	-0.18	3.355	-0.010	-0.31
NZVTKR		3.470	-0.025	-0.84	3.330	-0.035	-1.07
PAH6G6		3.480	-0.015	-0.51	3.360	-0.005	-0.16
PALEN6	*	3.570	0.075	2.45	3.455	0.090	2.73
PRG2VU		3.500	0.005	0.15	3.370	0.005	0.15
Q44VKT		3.550	0.055	1.80	3.410	0.045	1.37
Q9GE2A		3.495	0.000	-0.01	3.360	-0.005	-0.16
Q9WVW4		3.455	-0.040	-1.33	3.340	-0.025	-0.76



WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
QCHF4T		3.480	-0.015	-0.51	3.370	0.005	0.15
QQ328Y		3.565	0.070	2.29	3.445	0.080	2.43
QQHGGU		3.501	0.006	0.18	3.370	0.004	0.13
QVYN6T	X	3.470	-0.025	-0.84	3.470	0.105	3.19
R838FT		3.500	0.005	0.15	3.370	0.005	0.15
RGUPU2		3.450	-0.045	-1.50	3.320	-0.045	-1.37
RYDJJ6		3.515	0.020	0.64	3.380	0.015	0.45
TA6RGX	*	3.470	-0.025	-0.84	3.300	-0.065	-1.98
TAQ3F8		3.490	-0.005	-0.18	3.360	-0.005	-0.16
TCWN7R		3.535	0.040	1.30	3.400	0.035	1.06
U732W6		3.540	0.045	1.47	3.420	0.055	1.67
UDKJ67		3.525	0.030	0.97	3.400	0.035	1.06
UPHBW6		3.515	0.020	0.64	3.370	0.005	0.15
URHQ2L		3.525	0.030	0.97	3.385	0.020	0.61
VKF2XM		3.500	0.005	0.15	3.370	0.005	0.15
VRY436		3.540	0.045	1.47	3.400	0.035	1.06
W4DEE2		3.530	0.035	1.14	3.400	0.035	1.06
W4P9U2		3.460	-0.035	-1.17	3.315	-0.050	-1.52
WFL7XZ		3.545	0.050	1.63	3.420	0.055	1.67
WGUGPX	X	3.585	0.090	2.95	3.390	0.025	0.76
WX6XWZ		3.470	-0.025	-0.84	3.330	-0.035	-1.07
WYX7Q2		3.450	-0.045	-1.50	3.320	-0.045	-1.37
XNTKUM		3.505	0.010	0.31	3.375	0.010	0.30
XPM462		3.503	0.008	0.25	3.368	0.003	0.09
XXYATR		3.505	0.010	0.31	3.385	0.020	0.61
Y2V4EY		3.460	-0.035	-1.17	3.320	-0.045	-1.37
YEJFW	X	3.520	0.025	0.81	3.305	-0.060	-1.83
YL2N7T		3.450	-0.045	-1.50	3.310	-0.055	-1.68
YTLLW2		3.500	0.005	0.15	3.370	0.005	0.15
Z4DVUU		3.484	-0.012	-0.39	3.347	-0.018	-0.55
Z8DYL		3.495	0.000	-0.01	3.359	-0.007	-0.20
ZGLQXW		3.490	-0.005	-0.18	3.350	-0.015	-0.46
ZUPYTT		3.450	-0.045	-1.50	3.310	-0.055	-1.68
ZZF93R		3.470	-0.025	-0.84	3.340	-0.025	-0.76



Grand Means	Summary Statistics
3.4954 pH	3.3651 pH
Stnd Dev Btwn Labs	
0.0304 pH	0.0329 pH
Statistics based on 93 of 104 reporting participants	

Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc

Comments on Assigned Data Flags for Test #907

- 4B3GEP (X) - Inconsistent in testing between samples.
- 9AAH2L (X) - Inconsistent in testing between samples.
- LY8HV9 (X) - Data for both samples are low. Possible Systematic Error.
- 3X3HQT (X) - Inconsistent in testing between samples.
- YEJFHW (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample SA50.
- WGUGPX (X) - Inconsistent in testing, data for sample SA49 are high.
- LKQMFC (X) - Data for both samples are low. Possible Systematic Error.
- A44Z77 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of both samples.
- J9MHEZ (X) - Inconsistent in testing, data for sample SA49 are low.
- QVYN6T (X) - Inconsistent in testing, data for sample SA50 are high.
- F44Y2A (M) - Participant did not submit data for sample SA49.



**Analysis 908
Residual Sugar**

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
37DKCT		6.000	1.393	1.72	5.900	1.516	1.77
3X3HQT		4.085	-0.522	-0.64	4.000	-0.384	-0.45
42FFXF		3.100	-1.507	-1.86	3.100	-1.284	-1.50
64YUYU		5.650	1.043	1.29	5.450	1.066	1.25
8UNCGM		3.650	-0.957	-1.18	3.600	-0.784	-0.92
9BPEUL		5.000	0.393	0.49	4.500	0.116	0.14
9X6YQL		5.915	1.308	1.62	5.595	1.211	1.42
A44Z77		5.000	0.393	0.49	4.950	0.566	0.66
AMYNHM		3.950	-0.657	-0.81	3.800	-0.584	-0.68
AZ3Y4N		4.450	-0.157	-0.19	4.350	-0.034	-0.04
DNDCHC		4.100	-0.507	-0.63	3.765	-0.619	-0.72
G34DRF		4.350	-0.257	-0.32	4.050	-0.334	-0.39
HR6Z79		5.770	1.163	1.44	5.810	1.426	1.67
HXAYHY		5.400	0.793	0.98	4.900	0.516	0.60
KYCFTY		4.265	-0.342	-0.42	3.940	-0.444	-0.52
LY8HV9		5.050	0.443	0.55	5.310	0.926	1.08
NZVTKR	*	4.000	-0.607	-0.75	3.000	-1.384	-1.62
QQ328Y		4.045	-0.562	-0.69	3.785	-0.599	-0.70
TTYHK6		5.115	0.508	0.63	4.755	0.371	0.43
UPHBW6		4.270	-0.337	-0.42	3.995	-0.389	-0.45
URHQ2L		5.650	1.043	1.29	5.500	1.116	1.31
WGUGPX		3.910	-0.697	-0.86	3.555	-0.829	-0.97
WX6XWZ		4.750	0.143	0.18	4.450	0.066	0.08
Y2V4EY		3.550	-1.057	-1.31	3.470	-0.914	-1.07
YEJFHW		5.050	0.443	0.55	4.950	0.566	0.66
ZGLQXW		3.700	-0.907	-1.12	3.500	-0.884	-1.03

Grand Means		Summary Statistics	
	4.6067 g/L		4.3838 g/L
Std Dev Btwn Labs			0.8550 g/L
	0.8091 g/L		
Statistics based on 26 of 26 reporting participants			

Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc



**Analysis 908
Residual Sugar**

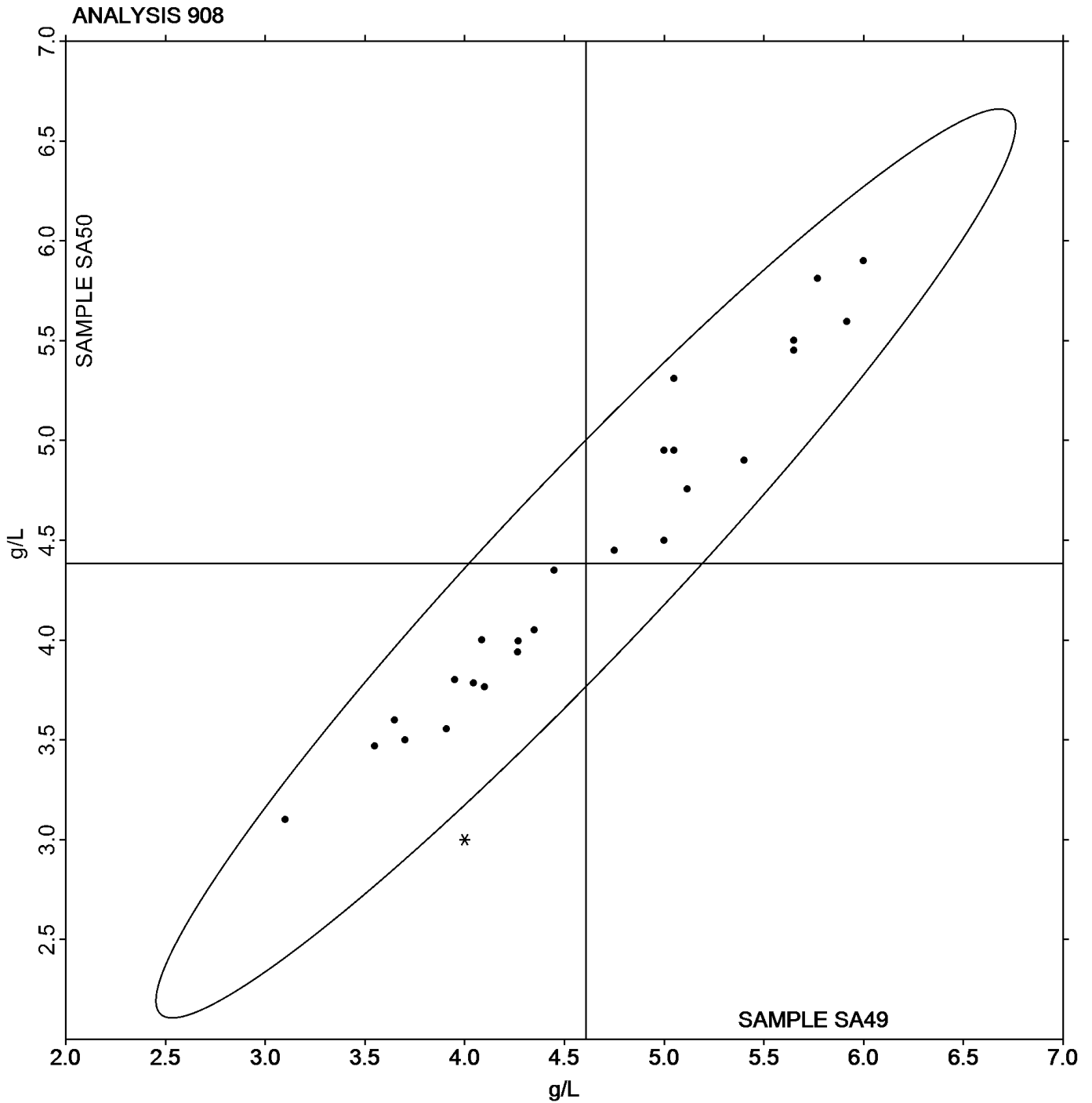
Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA49 <i>Pinot Grigio</i>			Sample SA50 <i>Sauvignon Blanc</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Please specify method used	4.158	0.159	-0.449	3.890	0.148	-0.494	2/2
Cu Reduction Method	5.247	0.878	0.640	4.898	1.156	0.514	6/6
Segmented Flow	4.533	0.824	-0.074	4.278	0.675	-0.106	2/2
FTIR	4.566	0.767	-0.041	4.421	0.769	0.037	13/13
Other _____	3.853	0.279	-0.753	3.597	0.152	-0.787	3/3



Analysis 908
Residual Sugar

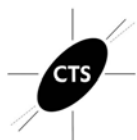
Fall 2023





L-Malic Acid

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2BTTZT		1.850	0.046	0.41	1.350	0.024	0.30
2LQUEH		1.885	0.081	0.72	1.385	0.059	0.75
37DKCT		1.758	-0.046	-0.41	1.322	-0.004	-0.05
37UYFW	X	1.555	-0.249	-2.21	1.080	-0.246	-3.10
3NCXMF	X	1.615	-0.189	-1.68	1.335	0.009	0.11
3X3HQT	X	1.800	-0.004	-0.04	1.500	0.174	2.19
42FFXF		1.805	0.001	0.01	1.340	0.014	0.18
4B3GEP		2.010	0.205	1.83	1.485	0.159	2.00
6LWDQB		1.890	0.086	0.76	1.410	0.084	1.06
8UNCGM	X	1.295	-0.509	-4.52	0.990	-0.336	-4.23
8XLVHL		1.780	-0.024	-0.21	1.345	0.019	0.24
9AAH2L		1.730	-0.074	-0.66	1.245	-0.081	-1.02
9BPEUL	X	1.720	-0.084	-0.75	1.460	0.134	1.69
9EPPPL		1.875	0.071	0.63	1.350	0.024	0.30
A3Q9FB		2.012	0.207	1.84	1.472	0.146	1.84
A44Z77		1.985	0.181	1.61	1.460	0.134	1.69
AAARGP		1.860	0.056	0.50	1.400	0.074	0.93
AEPZ6N		1.883	0.078	0.70	1.379	0.053	0.66
AZ3Y4N		1.690	-0.114	-1.01	1.260	-0.066	-0.83
B9BVJE		1.860	0.056	0.50	1.345	0.019	0.24
BD8HEN		1.640	-0.164	-1.46	1.195	-0.131	-1.65
CNZLVM	*	1.670	-0.134	-1.19	1.155	-0.171	-2.15
CPC9FM		1.758	-0.047	-0.41	1.276	-0.050	-0.64
D2448M		1.785	-0.019	-0.17	1.335	0.009	0.11
DAXCRD		1.718	-0.087	-0.77	1.260	-0.066	-0.84
DKJD8M		1.660	-0.144	-1.28	1.230	-0.096	-1.21
DKK4MH		1.912	0.108	0.96	1.415	0.089	1.12
DNDCHC		1.600	-0.204	-1.81	1.170	-0.156	-1.97
EM2XRH	X	1.851	0.047	0.42	1.226	-0.100	-1.26
ENFJ46		1.800	-0.004	-0.04	1.320	-0.006	-0.07
F44Y2A	X	1.490	-0.314	-2.79	0.855	-0.471	-5.94
FNAHZH		1.865	0.060	0.54	1.379	0.053	0.66
FP4E4H		1.772	-0.033	-0.29	1.294	-0.032	-0.40
FXEGPJ		1.785	-0.019	-0.17	1.340	0.014	0.18
FXKJLJ	X	2.880	1.076	9.56	1.965	0.639	8.06



ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #075

Fall 2023

Analysis 909

L-Malic Acid

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
G34DRF		1.925	0.121	1.08	1.410	0.084	1.06
H662JA	*	1.620	-0.184	-1.64	1.130	-0.196	-2.47
HFRYAF		1.907	0.103	0.92	1.399	0.073	0.92
HN6NB9		1.945	0.141	1.25	1.415	0.089	1.12
HRGY2H		1.830	0.026	0.23	1.355	0.029	0.37
HXAYHY	X	2.070	0.266	2.36	1.740	0.414	5.22
HYKWVF	X	1.770	-0.034	-0.30	1.505	0.179	2.26
J7GXNE		1.850	0.046	0.41	1.290	-0.036	-0.45
K6ERH6		1.700	-0.104	-0.92	1.200	-0.126	-1.59
KPMRVB	*	1.467	-0.337	-2.99	1.106	-0.220	-2.78
KYCFTY		1.740	-0.064	-0.57	1.290	-0.036	-0.45
L9D3E6	*	1.890	0.086	0.76	1.295	-0.031	-0.39
LKQMFC		1.820	0.016	0.14	1.355	0.029	0.37
LXFJGB		1.685	-0.119	-1.06	1.240	-0.086	-1.08
LY8HV9		1.705	-0.099	-0.88	1.330	0.004	0.05
MQVJ2X	X	1.970	0.166	1.47	1.650	0.324	4.09
MT22ZT		1.885	0.081	0.72	1.370	0.044	0.56
N2NMFB		1.850	0.046	0.41	1.340	0.014	0.18
NZG8A6		1.808	0.004	0.04	1.311	-0.015	-0.19
NZVTKR	X	2.100	0.296	2.63	1.735	0.409	5.16
PAH6G6		1.720	-0.084	-0.75	1.315	-0.011	-0.14
PALEN6		1.842	0.038	0.34	1.302	-0.024	-0.31
PRG2VU		1.850	0.046	0.41	1.320	-0.006	-0.07
Q44VKT		1.810	0.006	0.05	1.325	-0.001	-0.01
Q9GE2A		1.785	-0.019	-0.17	1.340	0.014	0.18
Q9WVW4		1.879	0.075	0.67	1.361	0.035	0.44
QCHF4T		1.965	0.161	1.43	1.437	0.111	1.40
QQ328Y		1.725	-0.079	-0.70	1.280	-0.046	-0.58
QQHGGU		1.840	0.036	0.32	1.330	0.004	0.05
QVYN6T		1.695	-0.109	-0.97	1.235	-0.091	-1.15
R838FT	*	1.564	-0.240	-2.13	1.225	-0.101	-1.27
RGUPU2		1.772	-0.033	-0.29	1.286	-0.040	-0.51
RYDJJ6		1.655	-0.149	-1.32	1.205	-0.121	-1.52
TA6RGX		1.860	0.056	0.50	1.385	0.059	0.75
TCWN7R		2.015	0.211	1.87	1.455	0.129	1.63



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

Report #075
Fall 2023

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
U732W6	*	1.610	-0.194	-1.72	1.265	-0.061	-0.77
UDKJ67		1.850	0.046	0.41	1.350	0.024	0.30
UPHBW6		1.806	0.002	0.02	1.334	0.008	0.10
URHQ2L		1.725	-0.079	-0.70	1.300	-0.026	-0.33
VKF2XM		1.730	-0.074	-0.66	1.285	-0.041	-0.52
VRY436	*	1.520	-0.284	-2.52	1.180	-0.146	-1.84
W4DEE2		1.935	0.130	1.16	1.417	0.091	1.15
W4P9U2		1.783	-0.022	-0.19	1.286	-0.040	-0.51
WFL7XZ		1.880	0.076	0.68	1.395	0.069	0.87
WGUGPX		1.855	0.051	0.45	1.350	0.024	0.30
WX6XWZ		1.750	-0.054	-0.48	1.300	-0.026	-0.33
WYX7Q2	X	1.100	-0.704	-6.26	1.125	-0.201	-2.53
XNTKUM		1.870	0.066	0.59	1.370	0.044	0.56
XPM462		1.815	0.011	0.10	1.355	0.029	0.37
XXYATR		1.940	0.136	1.21	1.430	0.104	1.31
Y2V4EY	X	1.710	-0.094	-0.84	1.140	-0.186	-2.34
YEJFW	X	1.650	-0.154	-1.37	1.350	0.024	0.30
YL2N7T		1.825	0.020	0.18	1.317	-0.009	-0.11
YTLLW2	*	1.795	-0.009	-0.08	1.410	0.084	1.06
Z4DVUU		1.940	0.135	1.20	1.399	0.073	0.92
Z8DYLK		1.825	0.021	0.19	1.340	0.014	0.18
ZGLQXW		1.892	0.088	0.78	1.381	0.055	0.69
ZZF93R		1.932	0.128	1.14	1.407	0.081	1.02

Grand Means		Summary Statistics	
	1.8040 g/L		1.3259 g/L
Std Dev Btwn Labs			
	0.1125 g/L		0.0793 g/L
Statistics based on 78 of 93 reporting participants			

Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc



Comments on Assigned Data Flags for Test #909

- WYX7Q2 (X) - Data for sample SA49 are low. Inconsistent within the determinations of sample SA49.
- HYKWVF (X) - Inconsistent in testing between samples.
- Y2V4EY (X) - Inconsistent in testing between samples.
- FXKJLJ (X) - Data for both samples are high.
- 3X3HQT (X) - Inconsistent in testing between samples.
- YEJFHW (X) - Inconsistent in testing between samples.
- 9BPEUL (X) - Inconsistent in testing between samples.
- 8UNCGM (X) - Data for both samples are low.
- EM2XRH (X) - Inconsistent in testing between samples.
- 37UYFW (X) - Data for sample SA50 are low.
- 3NCXMF (X) - Inconsistent in testing between samples.
- NZVTKR (X) - Data for sample SA50 are high.
- HXAYHY (X) - Data for sample SA50 are high.
- MQVJ2X (X) - Data for sample SA50 are high.
- F44Y2A (X) - Data for both samples are low.



Glucose + Fructose

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2BTTZT		4.050	-0.087	-0.37	3.800	-0.093	-0.43
2LQUEH		4.135	-0.002	-0.01	3.885	-0.008	-0.04
37UYFW		3.650	-0.487	-2.08	3.400	-0.493	-2.25
3E7X8M		3.800	-0.337	-1.44	3.650	-0.243	-1.11
3NCXMF		4.000	-0.137	-0.58	3.750	-0.143	-0.65
3X3HQT		4.200	0.063	0.27	3.900	0.007	0.03
42FFXF		4.230	0.093	0.40	4.060	0.167	0.76
4B3GEP		4.330	0.193	0.82	4.065	0.172	0.78
64YUYU		4.050	-0.087	-0.37	3.950	0.057	0.26
6LWDQB		4.315	0.178	0.76	4.110	0.217	0.99
8XLVHL		4.420	0.283	1.21	4.170	0.277	1.26
9AAH2L		4.115	-0.022	-0.09	3.915	0.022	0.10
9BPEUL		4.200	0.063	0.27	3.900	0.007	0.03
9EPPPL		4.260	0.123	0.52	3.870	-0.023	-0.11
9FYU3A		4.000	-0.137	-0.58	3.700	-0.193	-0.88
A3Q9FB	X	4.775	0.638	2.72	4.630	0.737	3.36
A44Z77		3.950	-0.187	-0.80	3.747	-0.146	-0.67
AAARGP		4.085	-0.052	-0.22	3.875	-0.018	-0.08
AEME99		4.220	0.083	0.35	3.915	0.022	0.10
AEPZ6N		4.400	0.263	1.12	4.100	0.207	0.94
AZ3Y4N	*	4.100	-0.037	-0.16	3.700	-0.193	-0.88
B9BVJE		4.355	0.218	0.93	4.090	0.197	0.90
BD8HEN		4.205	0.068	0.29	3.960	0.067	0.31
CNZLVM	*	3.585	-0.552	-2.35	3.490	-0.403	-1.84
CPC9FM	X	4.210	0.073	0.31	3.740	-0.153	-0.70
D2448M		4.185	0.048	0.20	3.895	0.002	0.01
DAXCRD		4.200	0.063	0.27	4.000	0.107	0.49
DKJD8M		4.000	-0.137	-0.58	3.800	-0.093	-0.43
DKK4MH		4.450	0.313	1.33	4.200	0.307	1.40
DNDCHC		4.040	-0.097	-0.41	3.845	-0.048	-0.22
EM2XRH		3.655	-0.482	-2.05	3.470	-0.423	-1.93
ENFJ46		4.130	-0.007	-0.03	3.840	-0.053	-0.24
F44Y2A		3.790	-0.347	-1.48	3.600	-0.293	-1.34
FNAHZH		4.400	0.263	1.12	4.200	0.307	1.40
FP4E4H		4.250	0.113	0.48	4.000	0.107	0.49



ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #075

Analysis 910

Fall 2023

Glucose + Fructose

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
FXEGPJ		4.230	0.093	0.40	4.035	0.142	0.65
FXXJLJ		4.315	0.178	0.76	4.010	0.117	0.53
G34DRF		4.380	0.243	1.04	4.095	0.202	0.92
H662JA		4.010	-0.127	-0.54	3.780	-0.113	-0.52
HFRYAF	*	4.400	0.263	1.12	4.300	0.407	1.86
HN6NB9		4.370	0.233	0.99	4.100	0.207	0.94
HR6Z79	X	4.970	0.833	3.55	5.150	1.257	5.74
HRGY2H		4.245	0.108	0.46	4.015	0.122	0.56
HTGPFD		4.450	0.313	1.33	4.200	0.307	1.40
HXAYHY		3.900	-0.237	-1.01	3.700	-0.193	-0.88
HYKWVF		4.450	0.313	1.33	4.300	0.407	1.86
J7GXNE		3.845	-0.292	-1.24	3.630	-0.263	-1.20
JLVVVZ	X	4.360	0.223	0.95	4.650	0.757	3.46
K6ERH6		4.000	-0.137	-0.58	3.760	-0.133	-0.61
KPMRVB		3.665	-0.472	-2.01	3.480	-0.413	-1.89
KYCFTY		4.200	0.063	0.27	3.880	-0.013	-0.06
L9D3E6	X	4.215	0.078	0.33	4.185	0.292	1.33
LKQMFC		3.980	-0.157	-0.67	3.800	-0.093	-0.43
LXFJGB		4.100	-0.037	-0.16	3.850	-0.043	-0.20
LY8HV9	X	4.295	0.158	0.67	3.805	-0.088	-0.40
MQVJ2X		4.100	-0.037	-0.16	3.900	0.007	0.03
MT22ZT		3.815	-0.322	-1.37	3.505	-0.388	-1.77
N2NMFB		4.500	0.363	1.55	4.200	0.307	1.40
NZG8A6		3.970	-0.167	-0.71	3.775	-0.118	-0.54
NZVTKR		3.950	-0.187	-0.80	3.700	-0.193	-0.88
PAH6G6		4.150	0.013	0.06	3.950	0.057	0.26
PALEN6		4.100	-0.037	-0.16	3.750	-0.143	-0.65
PRG2VU		4.080	-0.057	-0.24	3.850	-0.043	-0.20
Q44VKT		4.300	0.163	0.69	4.000	0.107	0.49
Q9GE2A		4.075	-0.062	-0.26	3.925	0.032	0.15
Q9WVW4		4.450	0.313	1.33	4.150	0.257	1.17
QCHF4T		4.426	0.289	1.23	4.158	0.264	1.21
QQHGGU	*	3.590	-0.547	-2.33	3.305	-0.588	-2.69
QVYN6T		4.160	0.023	0.10	3.885	-0.008	-0.04
R838FT		3.800	-0.337	-1.44	3.650	-0.243	-1.11



ASEV-CTS Wine Industry Interlaboratory Testing Program

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Fall 2023

Analysis 910 Glucose + Fructose

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
RGUPU2		4.000	-0.137	-0.58	3.800	-0.093	-0.43
RYDJJ6		3.985	-0.152	-0.65	3.860	-0.033	-0.15
TA6RGX		3.980	-0.157	-0.67	3.760	-0.133	-0.61
TCWN7R		4.205	0.068	0.29	3.975	0.082	0.37
TTYHK6		4.137	0.000	0.00	3.842	-0.052	-0.24
U732W6		4.100	-0.037	-0.16	3.900	0.007	0.03
UDKJ67		4.280	0.143	0.61	4.120	0.227	1.04
UPHBW6		4.270	0.133	0.57	3.995	0.102	0.47
URHQ2L		4.165	0.028	0.12	3.865	-0.028	-0.13
VKF2XM		3.990	-0.147	-0.63	3.790	-0.103	-0.47
VRY436		4.370	0.233	0.99	4.010	0.117	0.53
W4DEE2		4.500	0.363	1.55	4.100	0.207	0.94
W4P9U2		4.170	0.033	0.14	3.890	-0.003	-0.01
WFL7XZ		4.435	0.298	1.27	4.145	0.252	1.15
WGUGPX		3.910	-0.227	-0.97	3.555	-0.338	-1.54
WX6XWZ	*	4.750	0.613	2.61	4.450	0.557	2.54
WYX7Q2	X	3.450	-0.687	-2.93	3.650	-0.243	-1.11
XNTKUM		4.415	0.278	1.18	4.120	0.227	1.04
XPM462		4.200	0.063	0.27	4.000	0.107	0.49
XXYATR		4.105	-0.032	-0.14	3.995	0.102	0.47
Y2V4EY	*	3.550	-0.587	-2.50	3.470	-0.423	-1.93
YEJFHW		4.000	-0.137	-0.58	3.700	-0.193	-0.88
YL2N7T		3.990	-0.147	-0.63	3.645	-0.248	-1.13
YTLLW2		3.985	-0.152	-0.65	3.755	-0.138	-0.63
Z4DVUU		4.405	0.268	1.14	4.130	0.237	1.08
Z8DYLG		4.185	0.048	0.20	3.895	0.002	0.01
ZGLQXW		4.500	0.363	1.55	4.200	0.307	1.40
ZUPYTT		4.310	0.173	0.74	4.060	0.167	0.76
ZZF93R		3.950	-0.187	-0.80	3.650	-0.243	-1.11



**Analysis 910
Glucose + Fructose**

Grand Means		Summary Statistics	
	4.1370 g/L		3.8931 g/L
Std Dev Btwn Labs			0.2190 g/L
	0.2346 g/L		
Statistics based on 92 of 99 reporting participants			

Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc

Comments on Assigned Data Flags for Test #910

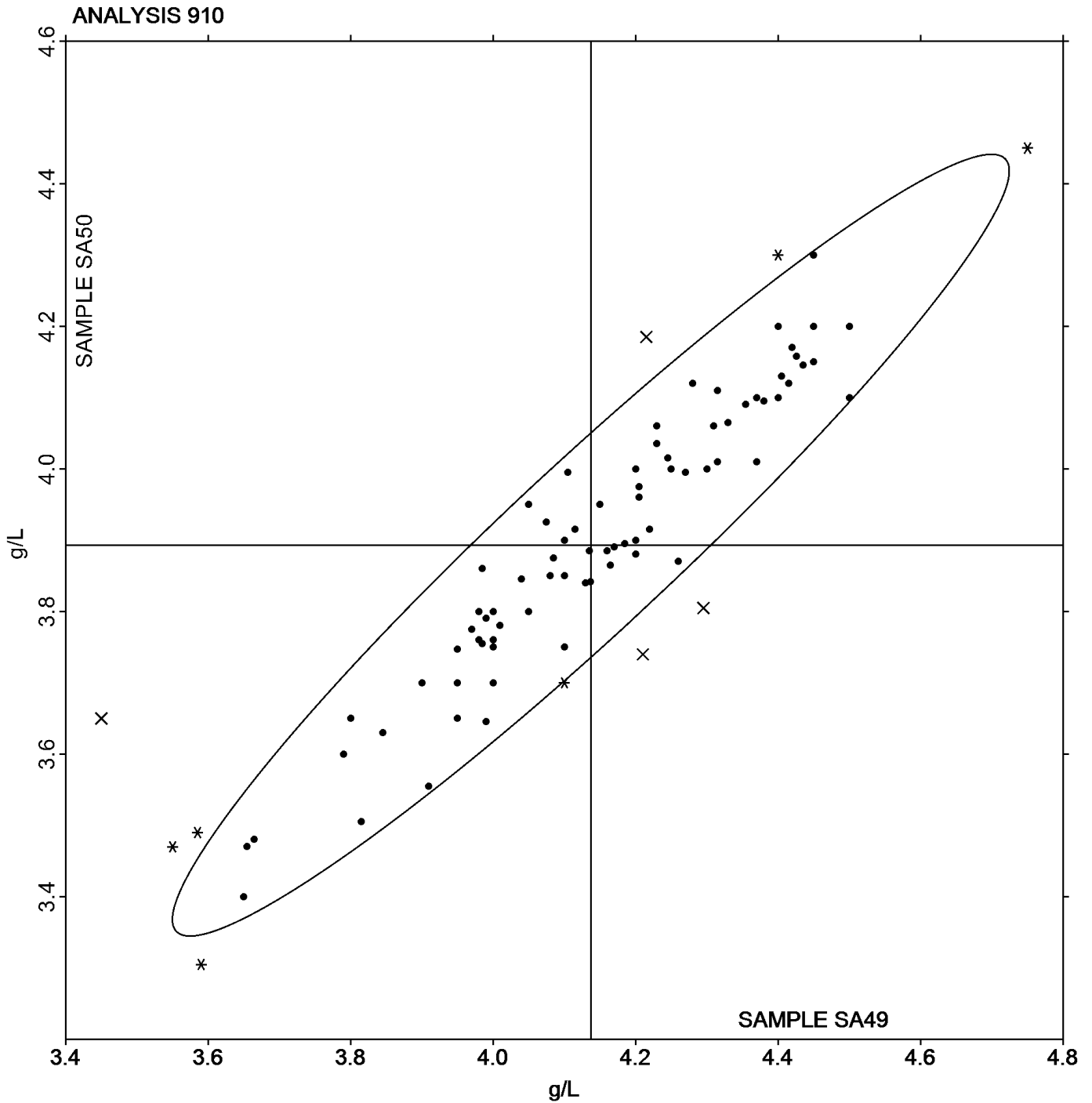
- WYX7Q2 (X) - Inconsistent in testing, data for sample SA49 are low. Inconsistent within the determinations of both samples.
- CPC9FM (X) - Inconsistent in testing between samples.
- HR6Z79 (X) - Data for both samples are high. Possible Systematic Error.
- LY8HV9 (X) - Inconsistent in testing between samples.
- JLWVVZ (X) - Inconsistent in testing, data for sample SA50 are high.
- A3Q9FB (X) - Inconsistent in testing, data for sample SA50 are high.
- L9D3E6 (X) - Inconsistent in testing between samples.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA49 <i>Pinot Grigio</i>			Sample SA50 <i>Sauvignon Blanc</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
HPLC	4.294	0.221	0.157	4.021	0.253	0.128	2/2
Enzymatic/Spectrophotometric	4.135	0.237	-0.002	3.889	0.219	-0.004	85/91
FTIR	4.110	0.222	-0.027	3.910	0.246	0.017	5/6



Analysis 910
Glucose + Fructose





Analysis 911
Copper Content

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2BTTZT		0.2545	0.0259	0.51	0.4980	0.0533	0.46
3E7X8M		0.2060	-0.0226	-0.45	0.4020	-0.0427	-0.37
42FFXF		0.2850	0.0564	1.11	0.6150	0.1703	1.46
64YUYU	X	0.0070	-0.2216	-4.38	0.0155	-0.4293	-3.67
9BPEUL		0.2300	0.0014	0.03	0.4100	-0.0348	-0.30
A3Q9FB		0.1710	-0.0576	-1.14	0.3400	-0.1047	-0.90
A44Z77	X	0.5270	0.2984	5.89	0.2650	-0.1798	-1.54
AMYNHM		0.2275	-0.0011	-0.02	0.4520	0.0073	0.06
CPC9FM		0.1600	-0.0686	-1.35	0.3200	-0.1248	-1.07
DKK4MH		0.2200	-0.0086	-0.17	0.4450	0.0003	0.00
FXKJLJ		0.1900	-0.0386	-0.76	0.3750	-0.0697	-0.60
G34DRF	*	0.3800	0.1514	2.99	0.7300	0.2853	2.44
HN6NB9		0.2650	0.0364	0.72	0.4700	0.0253	0.22
HR6Z79		0.1610	-0.0676	-1.34	0.3040	-0.1408	-1.20
HXAYHY		0.2200	-0.0086	-0.17	0.4200	-0.0248	-0.21
LY8HV9		0.1660	-0.0626	-1.24	0.3485	-0.0963	-0.82
NZVTKR		0.1600	-0.0686	-1.35	0.1950	-0.2498	-2.13
PAH6G6		0.2335	0.0049	0.10	0.4270	-0.0177	-0.15
TTYHK6		0.2125	-0.0161	-0.32	0.4205	-0.0243	-0.21
U732W6		0.2295	0.0009	0.02	0.4610	0.0163	0.14
URHQ2L		0.2900	0.0614	1.21	0.6300	0.1853	1.58
W4DEE2		0.2700	0.0414	0.82	0.4250	-0.0197	-0.17
W4P9U2		0.2700	0.0414	0.82	0.6400	0.1953	1.67
WX6XWZ	X	0.7000	0.4714	9.31	0.7850	0.3403	2.91
XPM462		0.2255	-0.0031	-0.06	0.4360	-0.0087	-0.07
YEJFHW		0.2350	0.0064	0.13	0.4650	0.0202	0.17
ZGLQXW		0.2250	-0.0036	-0.07	0.4450	0.0003	0.00

Grand Means		Summary Statistics	
	0.22863 mg/L		0.44475 mg/L
Std Dev Btwn Labs			
	0.05065 mg/L		0.11700 mg/L
Statistics based on 24 of 27 reporting participants			

Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc



Analysis 911
Copper Content

Comments on Assigned Data Flags for Test #911

WX6XWZ (X) - Data for both samples are high.

64YUYU (X) - Extreme data.

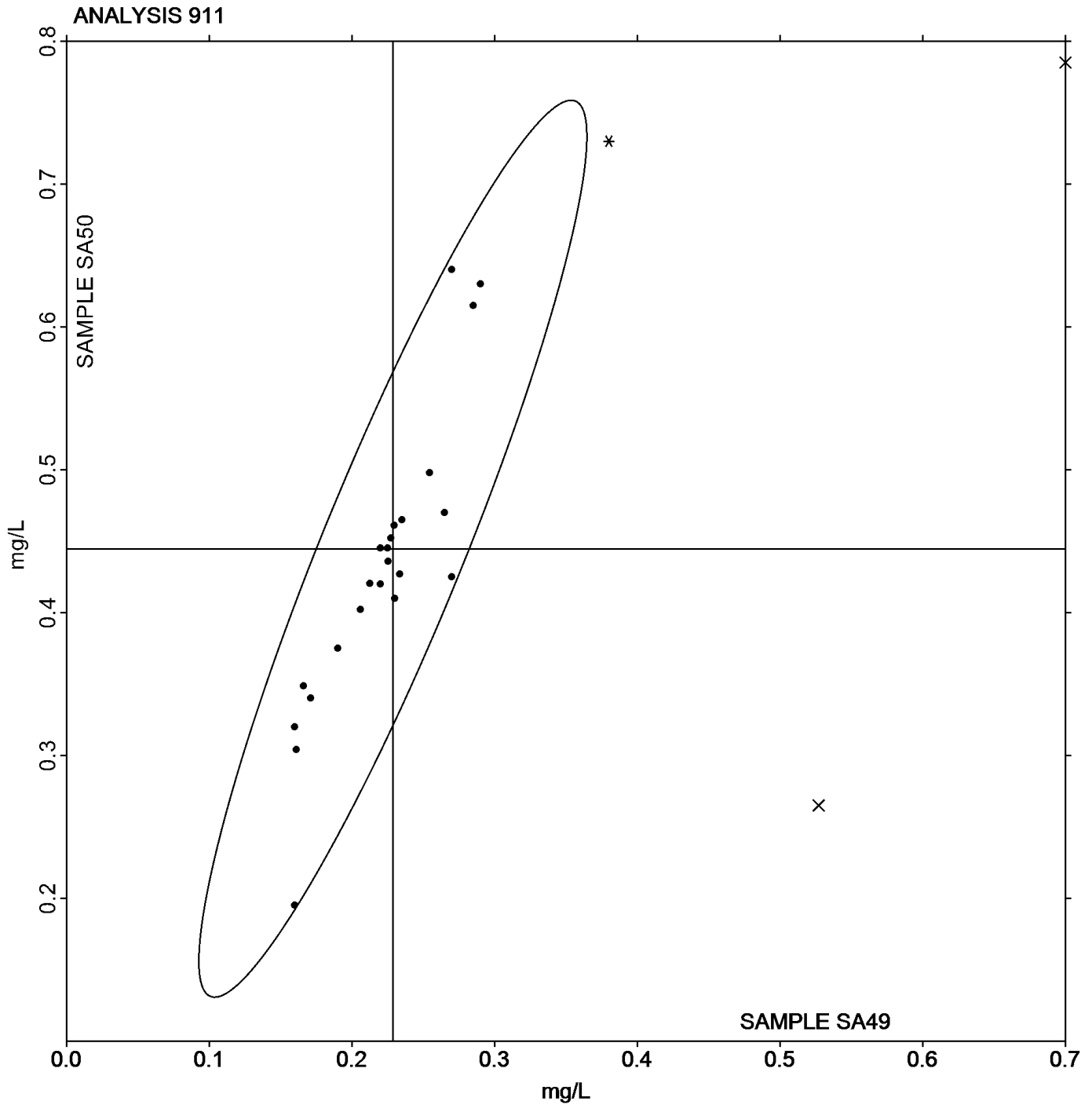
A44Z77 (X) - Data for sample SA49 are high.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA49 <i>Pinot Grigio</i>			Sample SA50 <i>Sauvignon Blanc</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Please specify method used	0.206	0.000	-0.0226	0.402	0.000	-0.0427	1/3
Atomic Absorption Spectroscopy	0.223	0.072	-0.0055	0.421	0.156	-0.0237	10/11
ICP	0.222	0.024	-0.0070	0.435	0.041	-0.0101	9/9
FTIR	0.290	0.000	0.0614	0.630	0.000	0.1853	1/1
Other _____	0.268	0.004	0.0389	0.555	0.120	0.1103	2/2
Colorimetric Analysis	0.230	0.000	0.0014	0.410	0.000	-0.0347	1/1



Analysis 911
Copper Content





Potassium (K) Content

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2BTTZT		813.0	56.5	0.39	647.0	41.3	0.30
3E7X8M	*	1,250.0	493.5	3.42	1,100.0	494.3	3.55
42FFXF		841.3	84.8	0.59	659.4	53.7	0.39
9BPEUL		681.0	-75.5	-0.52	555.0	-50.7	-0.36
A44Z77		617.3	-139.2	-0.97	452.7	-153.0	-1.10
DKK4MH		752.5	-4.0	-0.03	570.0	-35.7	-0.26
F44Y2A		882.5	126.0	0.87	733.0	127.3	0.91
FXKJLJ	X	1,783.0	1,026.5	7.12	1,736.5	1,130.8	8.11
G34DRF	X	34.3	-722.2	-5.01	26.9	-578.8	-4.15
HN6NB9		682.0	-74.5	-0.52	502.0	-103.7	-0.74
HTGPFD		710.2	-46.3	-0.32	548.2	-57.5	-0.41
HXAYHY		672.0	-84.5	-0.59	532.0	-73.7	-0.53
LY8HV9		760.0	3.5	0.02	545.0	-60.7	-0.44
NZVTKR		750.5	-6.0	-0.04	667.5	61.8	0.44
PAH6G6		681.3	-75.2	-0.52	524.7	-81.0	-0.58
TA6RGX		818.5	62.0	0.43	643.0	37.3	0.27
TTYHK6		684.7	-71.8	-0.50	536.5	-69.2	-0.50
W4P9U2		789.5	33.0	0.23	580.0	-25.7	-0.18
WFL7XZ	*	538.5	-218.0	-1.51	540.5	-65.2	-0.47
XPM462		704.2	-52.3	-0.36	548.6	-57.1	-0.41
Y2V4EY		847.0	90.5	0.63	734.5	128.8	0.92
YEJFHW		654.0	-102.5	-0.71	494.5	-111.2	-0.80

Grand Means	Summary Statistics
756.50 mg/L	605.70 mg/L
Stnd Dev Btwn Labs	
144.09 mg/L	139.41 mg/L
Statistics based on 20 of 22 reporting participants	

Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc

Comments on Assigned Data Flags for Test #912

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

G34DRF (X) - Data for both samples are low.



Potassium (K) Content

Results by Methodology (as reported by laboratory)

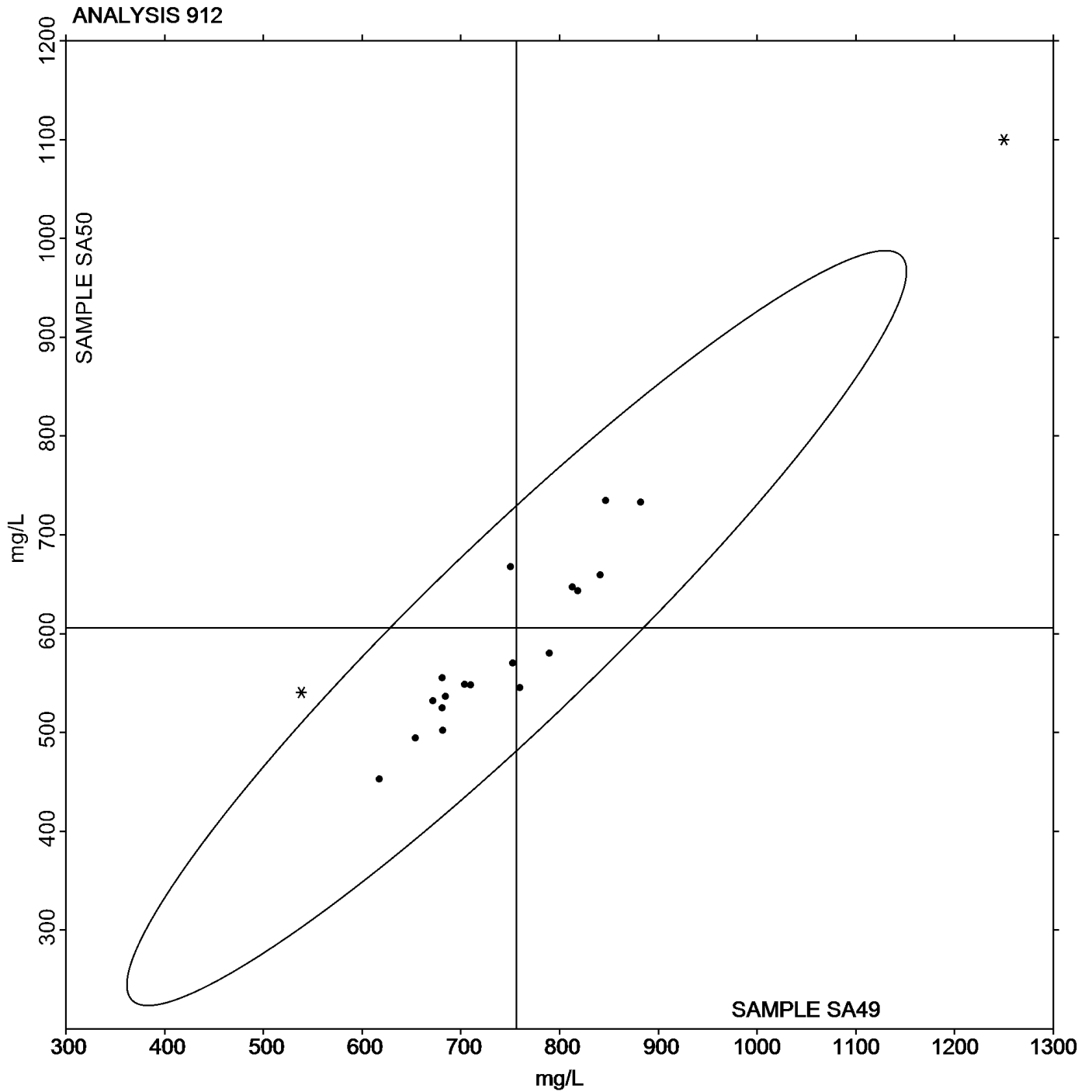
Test Methodology	Sample SA49 <i>Pinot Grigio</i>			Sample SA50 <i>Sauvignon Blanc</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Atomic Absorption Spectroscopy	729.823	92.922	-26.7	581.938	101.939	-23.8	4/6
ICP	708.806	55.507	-47.7	550.459	48.369	-55.2	7/7
FTIR	760.000	0.000	3.5	545.000	0.000	-60.7	1/1
Other _____	836.417	239.252	79.9	708.833	214.338	103.1	6/6
Colorimetric Analysis	735.250	76.721	-21.2	567.500	17.678	-38.2	2/2



Analysis 912

Fall 2023

Potassium (K) Content





ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #075

**Analysis 915
A420nm (1cm path)**

Fall 2023

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2BTTZT		0.0730	-0.0030	-0.43	0.0725	-0.0009	-0.14
37DKCT		0.0819	0.0059	0.85	0.0785	0.0051	0.81
37UYFW		0.0705	-0.0055	-0.80	0.0700	-0.0034	-0.54
3E7X8M		0.0795	0.0035	0.51	0.0780	0.0046	0.73
3NCXMF		0.0810	0.0050	0.72	0.0750	0.0016	0.26
3X3HQT	X	0.0475	-0.0285	-4.12	0.0460	-0.0274	-4.36
42FFXF	*	0.0940	0.0180	2.60	0.0910	0.0176	2.80
8UNCGM	X	0.0700	-0.0060	-0.87	0.0950	0.0216	3.44
8XLVHL	X	0.1255	0.0495	7.16	0.1205	0.0471	7.50
9BPEUL		0.0841	0.0081	1.17	0.0780	0.0046	0.73
9FYU3A		0.0730	-0.0030	-0.43	0.0720	-0.0014	-0.22
A44Z77		0.0735	-0.0025	-0.36	0.0670	-0.0064	-1.02
AEME99		0.0700	-0.0060	-0.87	0.0650	-0.0084	-1.33
AZ3Y4N	X	0.0010	-0.0750	-10.85	0.0010	-0.0724	-11.52
BD8HEN		0.0810	0.0050	0.72	0.0750	0.0016	0.26
CNZLVM		0.0770	0.0010	0.14	0.0755	0.0021	0.34
CPC9FM		0.0635	-0.0125	-1.81	0.0615	-0.0119	-1.89
DAXCRD		0.0740	-0.0020	-0.29	0.0775	0.0041	0.65
DKJD8M		0.0725	-0.0035	-0.51	0.0690	-0.0044	-0.70
DKK4MH		0.0720	-0.0040	-0.58	0.0690	-0.0044	-0.70
DNDCHC		0.0765	0.0004	0.06	0.0753	0.0019	0.30
FXKJLJ	X	0.0330	-0.0430	-6.22	0.0370	-0.0364	-5.79
G34DRF		0.0790	0.0030	0.43	0.0760	0.0026	0.42
H662JA		0.0750	-0.0010	-0.15	0.0745	0.0011	0.18
HN6NB9		0.0830	0.0070	1.01	0.0785	0.0051	0.81
HR6Z79	*	0.0840	0.0080	1.16	0.0730	-0.0004	-0.06
HXAYHY		0.0730	-0.0030	-0.43	0.0720	-0.0014	-0.22
HYKWVF		0.0660	-0.0100	-1.45	0.0605	-0.0129	-2.05
J9MHEZ		0.0815	0.0055	0.79	0.0765	0.0031	0.50
JLWVVZ		0.0680	-0.0080	-1.16	0.0650	-0.0084	-1.33
KYCFTY		0.0825	0.0065	0.94	0.0825	0.0091	1.45
L9D3E6	X	0.0285	-0.0475	-6.87	0.0200	-0.0534	-8.50
LY8HV9		0.0775	0.0015	0.22	0.0745	0.0011	0.18
MT22ZT		0.0750	-0.0010	-0.15	0.0750	0.0016	0.26
N2NMFB		0.0760	0.0000	0.00	0.0760	0.0026	0.42



**Analysis 915
A420nm (1cm path)**

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
NZVTKR		0.0750	-0.0010	-0.15	0.0760	0.0026	0.42
PAH6G6		0.0860	0.0100	1.45	0.0780	0.0046	0.73
Q44VKT		0.0750	-0.0010	-0.15	0.0740	0.0006	0.10
QCHF4T		0.0890	0.0130	1.88	0.0870	0.0136	2.17
TAQ3F8	*	0.0630	-0.0130	-1.88	0.0700	-0.0034	-0.54
U732W6		0.0780	0.0020	0.29	0.0780	0.0046	0.73
UPHBW6		0.0720	-0.0040	-0.58	0.0725	-0.0009	-0.14
URHQ2L	*	0.0575	-0.0185	-2.68	0.0565	-0.0169	-2.69
W4DEE2		0.0808	0.0048	0.69	0.0786	0.0052	0.83
W4P9U2		0.0825	0.0065	0.94	0.0735	0.0001	0.02
WFL7XZ	X	0.0520	-0.0240	-3.47	0.0675	-0.0059	-0.94
WX6XWZ		0.0775	0.0015	0.22	0.0725	-0.0009	-0.14
WYX7Q2		0.0770	0.0010	0.14	0.0730	-0.0004	-0.06
Y2V4EY		0.0670	-0.0090	-1.30	0.0660	-0.0074	-1.18
Z4DVUU		0.0750	-0.0010	-0.15	0.0740	0.0006	0.10
Z8DYLG		0.0745	-0.0015	-0.22	0.0690	-0.0044	-0.70
ZGLQXW		0.0730	-0.0030	-0.43	0.0700	-0.0034	-0.54
ZUPYTT	X	0.0875	0.0115	1.66	0.0730	-0.0004	-0.06

Grand Means		Summary Statistics	
0.07601	Absorbance Units	0.07339	Absorbance Units
Stnd Dev Btwn Labs			
0.00691	Absorbance Units	0.00628	Absorbance Units
Statistics based on 45 of 53 reporting participants			

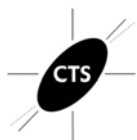
Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc



Analysis 915
A420nm (1cm path)

Comments on Assigned Data Flags for Test #915

- FXKJLJ (X) - Data for both samples are low. Possible Systematic Error.
- 8XLVHL (X) - Data for both samples are high. Possible Systematic Error.
- 3X3HQT (X) - Data for both samples are low. Possible Systematic Error.
- ZUPYTT (X) - Inconsistent in testing between samples.
- 8UNCGM (X) - Inconsistent in testing, data for sample SA50 are high. Inconsistent within the determinations of sample SA50.
- AZ3Y4N (X) - Data for both samples are low.
- WFL7XZ (X) - Data for sample SA49 are low. Inconsistent within the determinations of sample SA49.
- L9D3E6 (X) - Data for both samples are low..



ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #075

**Analysis 916
A520nm (1cm path)**

Fall 2023

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2BTTZT		0.0130	-0.0005	-0.13	0.0090	-0.0004	-0.15
37DKCT		0.0146	0.0011	0.29	0.0101	0.0007	0.28
37UYFW		0.0085	-0.0050	-1.29	0.0040	-0.0054	-2.11
3E7X8M		0.0130	-0.0005	-0.13	0.0100	0.0006	0.24
3NCXMF		0.0170	0.0035	0.91	0.0100	0.0006	0.24
3X3HQT		0.0100	-0.0035	-0.90	0.0100	0.0006	0.24
42FFXF		0.0200	0.0065	1.69	0.0150	0.0056	2.20
8UNCGM	X	0.0100	-0.0035	-0.90	0.0650	0.0556	21.82
8XLVHL	X	0.0550	0.0415	10.78	0.0510	0.0416	16.33
9BPEUL		0.0200	0.0065	1.69	0.0109	0.0015	0.59
9FYU3A		0.0120	-0.0015	-0.39	0.0090	-0.0004	-0.15
A44Z77		0.0190	0.0055	1.43	0.0105	0.0011	0.44
AEME99		0.0150	0.0015	0.39	0.0090	-0.0004	-0.15
BD8HEN		0.0155	0.0020	0.52	0.0100	0.0006	0.24
CNZLVM		0.0140	0.0005	0.13	0.0095	0.0001	0.04
CPC9FM		0.0065	-0.0070	-1.81	0.0035	-0.0059	-2.31
DAXCRD		0.0130	-0.0005	-0.13	0.0115	0.0021	0.83
DKJD8M		0.0140	0.0005	0.13	0.0100	0.0006	0.24
DKK4MH		0.0115	-0.0020	-0.51	0.0075	-0.0019	-0.74
DNDCHC		0.0129	-0.0006	-0.15	0.0094	0.0000	0.00
FXXJLJ		0.0050	-0.0085	-2.20	0.0055	-0.0039	-1.53
G34DRF		0.0130	-0.0005	-0.13	0.0085	-0.0009	-0.35
H662JA		0.0125	-0.0010	-0.26	0.0090	-0.0004	-0.15
HN6NB9		0.0185	0.0050	1.30	0.0115	0.0021	0.83
HXAYHY		0.0130	-0.0005	-0.13	0.0090	-0.0004	-0.15
J9MHEZ		0.0160	0.0025	0.65	0.0110	0.0016	0.63
JLWVVZ	M	0.0050	-0.0085	-2.20	No data reported for this sample		
KYCFTY		0.0180	0.0045	1.17	0.0140	0.0046	1.81
L9D3E6	X	0.0145	0.0010	0.26	0.0160	0.0066	2.59
LY8HV9		0.0125	-0.0010	-0.26	0.0085	-0.0009	-0.35
MT22ZT		0.0140	0.0005	0.13	0.0100	0.0006	0.24
N2NMFB		0.0130	-0.0005	-0.13	0.0090	-0.0004	-0.15
NZVTKR		0.0120	-0.0015	-0.39	0.0115	0.0021	0.83
PAH6G6	*	0.0210	0.0075	1.95	0.0110	0.0016	0.63
Q44VKT		0.0120	-0.0015	-0.39	0.0085	-0.0009	-0.35



Analysis 916
A520nm (1cm path)

Table with 8 columns: WebCode, Data Flag, Lab Mean, Diff from Grand Mean, CPV (for Sample SA49), Lab Mean, Diff from Grand Mean, CPV (for Sample SA50). Rows include various lab codes like QCHF4T, TAQ3F8, etc.

Summary Statistics table with 2 columns: Grand Means, Stnd Dev Btwn Labs. Values include 0.01348 Absorbance Units and 0.00939 Absorbance Units.

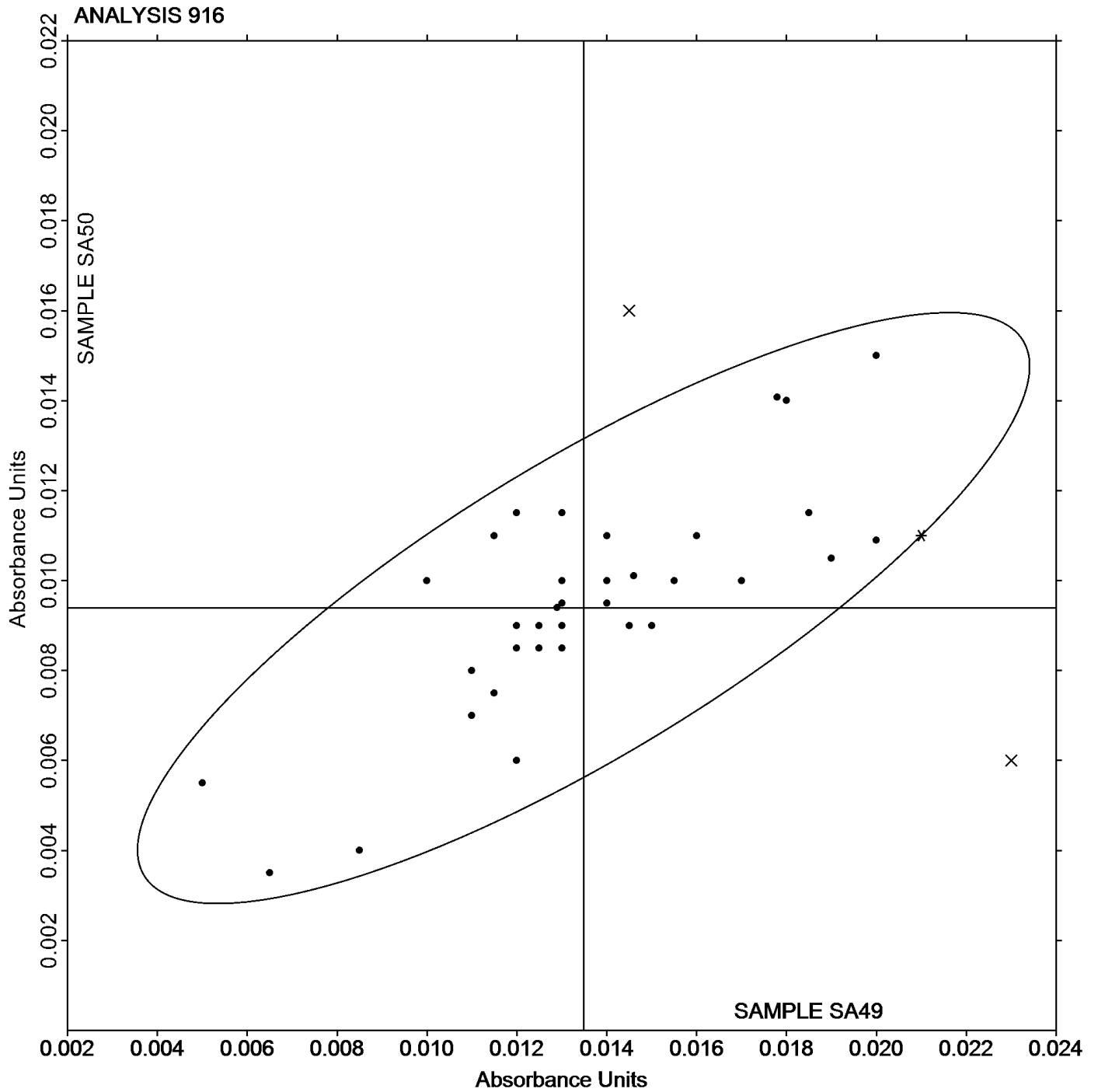
Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc

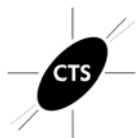
Comments on Assigned Data Flags for Test #916

- 8XLVHL (X) - Data for both samples are high.
ZUPYTT (X) - Inconsistent in testing between samples.
8UNCGM (X) - Data for sample SA50 are high. Inconsistent within the determinations of sample SA50.
WFL7XZ (X) - Data for both samples are high. Inconsistent within the determinations of both samples.
QCHF4T (X) - Data for both samples are high.
JLWVZ (M) - Participant did not submit data for sample SA50.
L9D3E6 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample SA50.



Analysis 916
A520nm (1cm path)





ASEV-CTS Wine Industry Interlaboratory Testing Program
Research Property 950
Research Property: Citric Acid

Report #075
Fall 2023

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Target Value	% Diff from Target Value	Lab Mean	Diff from Target Value	% Diff from Target Value
2BTTZT		0.3750	0.0361	0.29	0.3000	0.0183	0.17
37UYFW		0.3400	0.0011	0.01	0.3100	0.0283	0.27
42FFXF		0.3765	0.0376	0.31	0.3010	0.0193	0.18
64YUYU		0.4735	0.1346	1.10	0.4609	0.1791	1.71
9BPEUL		0.3800	0.0411	0.33	0.3100	0.0283	0.27
9EPPPL		0.1655	-0.1734	-1.41	0.1375	-0.1442	-1.37
AZ3Y4N		0.3550	0.0161	0.13	0.2900	0.0083	0.08
CPC9FM		0.4400	0.1011	0.82	0.3600	0.0783	0.75
DKK4MH		0.3905	0.0516	0.42	0.2945	0.0128	0.12
FXXJLJ		0.4000	0.0611	0.50	0.3200	0.0383	0.36
HXAYHY	M	1.6700	1.3311	10.84	No data reported for this sample		
LY8HV9		0.4000	0.0611	0.50	0.4000	0.1183	1.13
MT22ZT		0.2095	-0.1294	-1.05	0.1880	-0.0937	-0.89
NZVTKR		0.3500	0.0111	0.09	0.3000	0.0183	0.17
PAH6G6		0.0155	-0.3234	-2.63	0.0135	-0.2682	-2.55
U732W6		0.3650	0.0261	0.21	0.2900	0.0083	0.08
URHQ2L		0.5050	0.1661	1.35	0.3550	0.0733	0.70
VKF2XM		0.1645	-0.1744	-1.42	0.1295	-0.1522	-1.45
XPM462		0.3955	0.0566	0.46	0.3115	0.0298	0.28

Research Property Consensus Value

Consensus Average

0.33894 g/L

0.28174 g/L

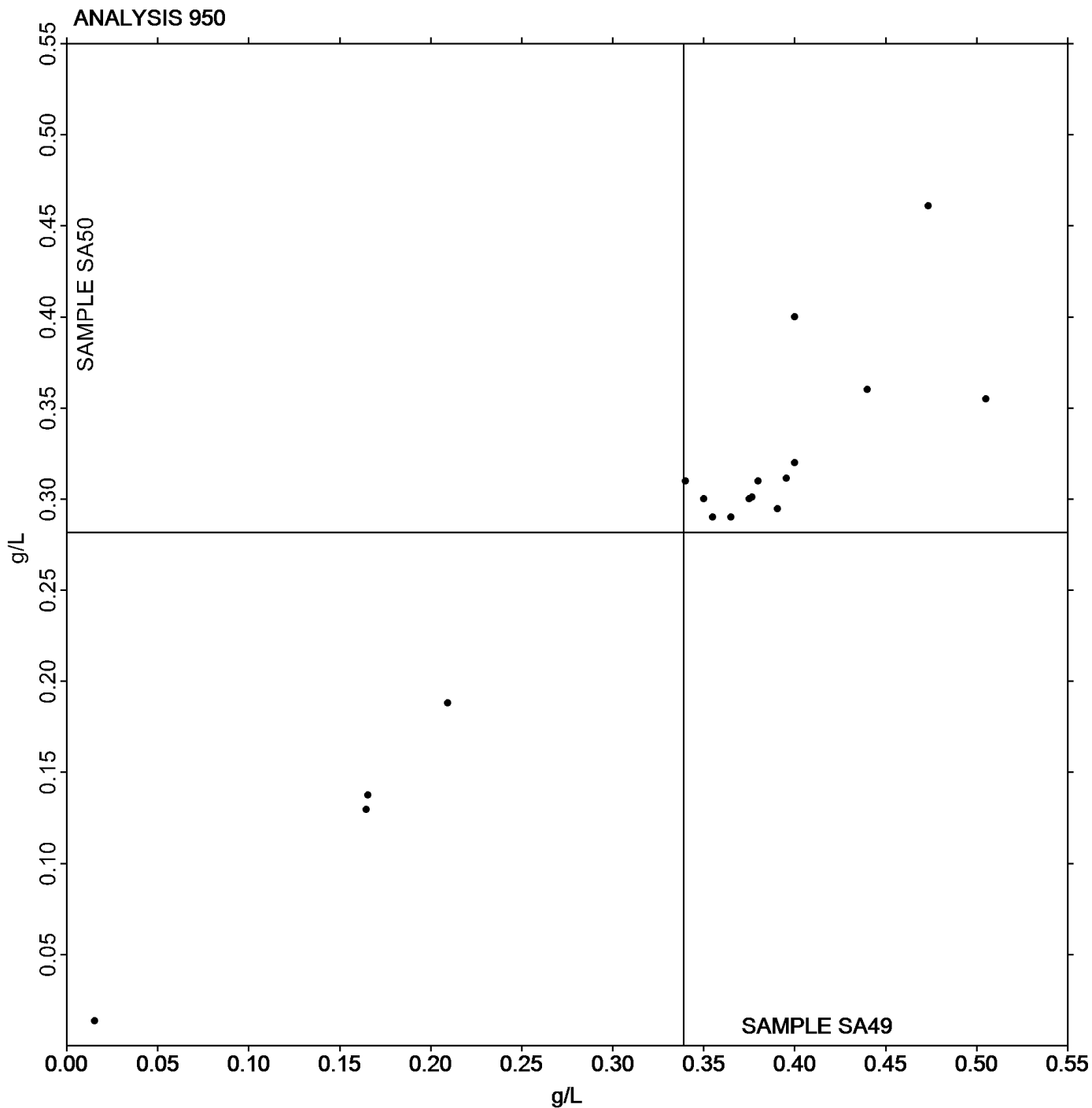
Note: Tests 950, 951 and 952, are research tests. As a result participants should use caution when evaluating data for these tests.

This consensus average is based on 18 reporting participants.

Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc

Comments on Assigned Data Flags for Test #950

HXAYHY (M) - Participant did not submit data for sample SA50.



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: Potassium Sorbate as Sorbic Acid

Report #075
Fall 2023

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Target Value	% Diff from Target Value	Lab Mean	Diff from Target Value	% Diff from Target Value
42FFXF		1.540	-2.705	-0.48	1.615	-2.318	-0.40
9FYU3A		3.000	-1.245	-0.22	2.000	-1.933	-0.33
DNDCHC		0.257	-3.988	-0.70	0.748	-3.185	-0.55
FXXJLJ		19.000	14.755	2.60	19.000	15.067	2.60
NZVTKR		3.600	-0.645	-0.11	1.300	-2.633	-0.46
PAH6G6		2.000	-2.245	-0.39	1.000	-2.933	-0.51
TTYHK6		8.040	3.795	0.67	8.200	4.267	0.74
U732W6		0.040	-4.205	-0.74	0.050	-3.883	-0.67
URHQ2L		4.000	-0.245	-0.04	4.000	0.067	0.01
Y2V4EY		0.970	-3.275	-0.58	1.420	-2.513	-0.43

Research Property Consensus Value

Consensus Average

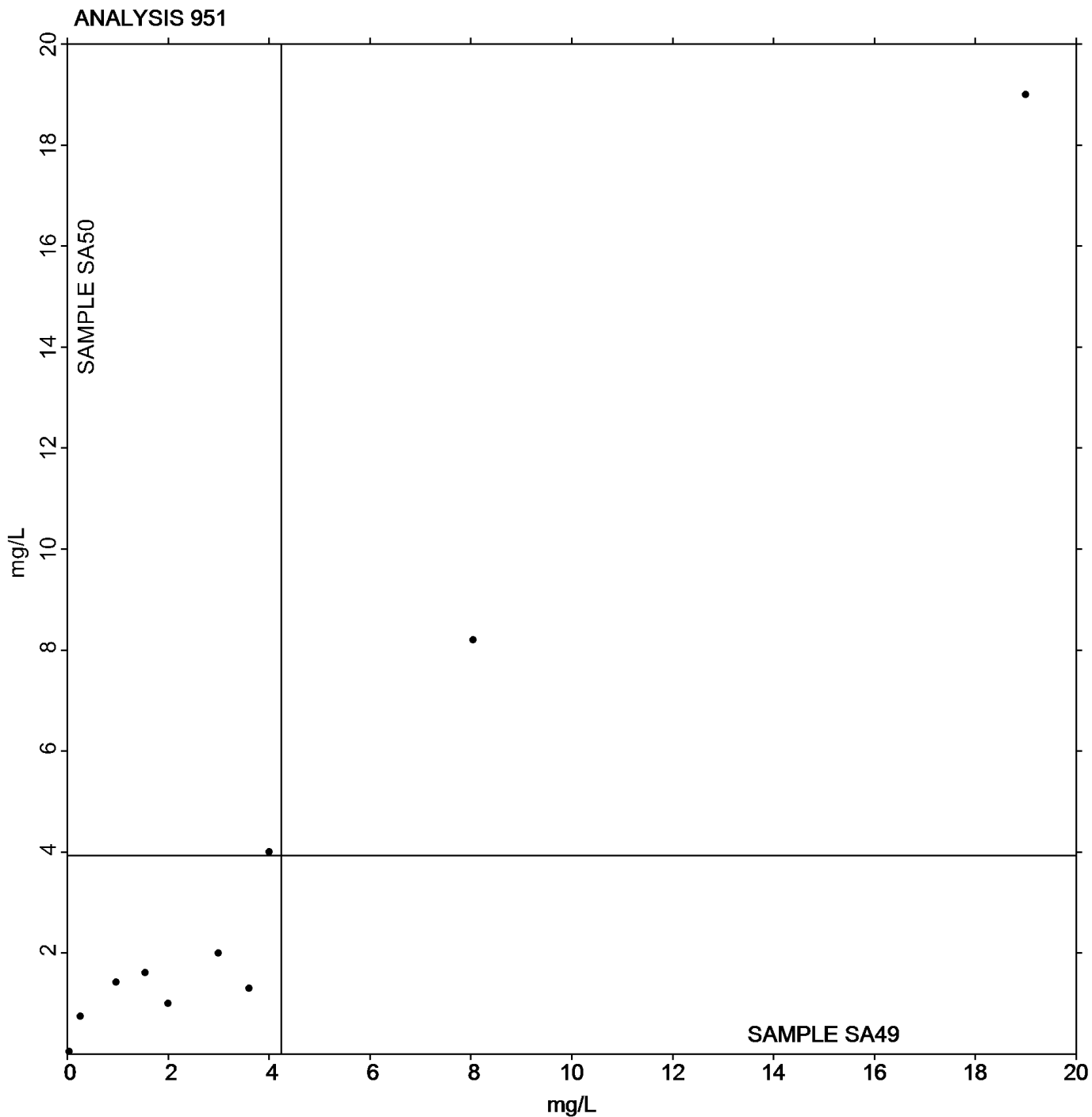
4.2447 mg/L

3.9333 mg/L

Note: Tests 950, 951 and 952, are research tests. As a result participants should use caution when evaluating data for these tests.

This consensus average is based on 10 reporting participants.

Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc



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



Analysis 952

Research Property: Methanol Content

WebCode	Data Flag	Sample SA49			Sample SA50		
		Lab Mean	Diff from Target Value	% Diff from Target Value	Lab Mean	Diff from Target Value	% Diff from Target Value
2BTTZT		38.00	-1.32	-0.16	40.00	-1.61	-0.16
9BPEUL		51.70	12.38	1.50	49.50	7.89	0.77
9EPPPL		40.00	0.68	0.08	37.50	-4.11	-0.40
AZ3Y4N		55.00	15.68	1.90	67.50	25.89	2.52
DKK4MH		25.25	-14.07	-1.71	26.40	-15.21	-1.48
DNDCHC		34.75	-4.57	-0.55	41.50	-0.11	-0.01
FXKJLJ		33.00	-6.32	-0.77	34.50	-7.11	-0.69
PAH6G6		37.50	-1.82	-0.22	38.00	-3.61	-0.35
TTYHK6		40.35	1.03	0.13	40.50	-1.11	-0.11
XXYATR		40.95	1.63	0.20	43.30	1.69	0.16
YEJFHW		36.00	-3.32	-0.40	39.00	-2.61	-0.25

Research Property Consensus Value

Consensus Average

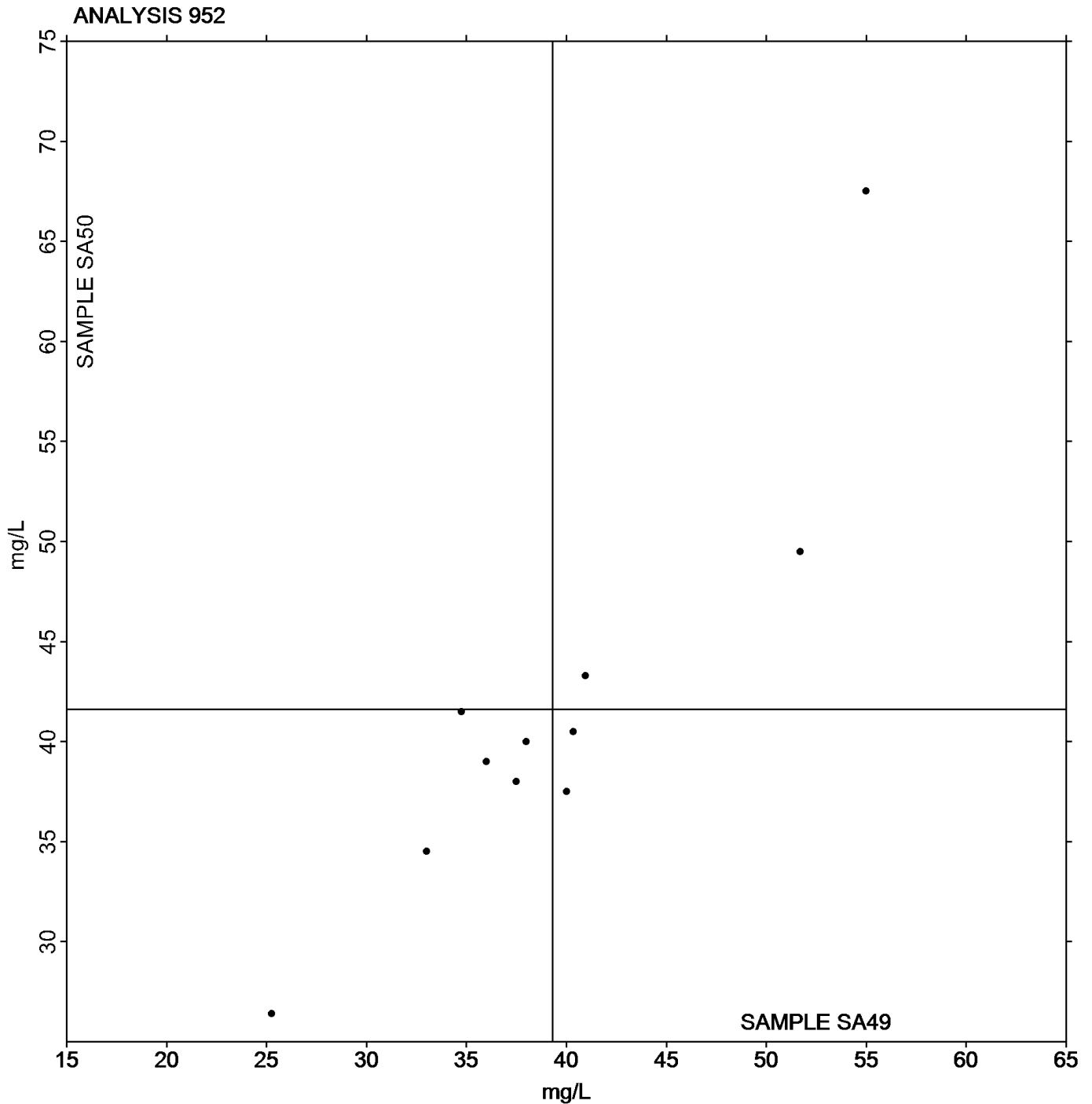
39.318 mg/L

41.609 mg/L

Note: Tests 950, 951 and 952, are research tests. As a result participants should use caution when evaluating data for these tests.

This consensus average is based on 11 reporting participants.

Wines tested: SA49: Pinot Grigio; SA50: Sauvignon Blanc



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

-End of Report-