



Wine Industry Interlaboratory Program

Summary Report #061 - Spring 2019

[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 Property: Dissolved CO₂</u>
<u>951</u>	<u>Research Property: Citric Acid</u>
<u>952</u>	<u>Research: Potassium Sorbate as Sorbic Acid</u>

About the Wine Industry Interlaboratory Program

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

About CTS

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

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Key for Web Summary Report (Page 1 of 2)

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

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

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

Common Problems Highlighted in Footnotes

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

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



ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #061
Spring 2019

Analysis 901 Ethanol (% of volume)

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
27PNMY		10.17	-0.01	-0.13	10.06	-0.02	-0.30
2EJUGZ		10.25	0.07	1.52	10.12	0.04	0.82
2TF9E9		10.18	0.00	-0.03	10.10	0.02	0.45
2WEM2Y		10.15	-0.03	-0.65	10.05	-0.03	-0.57
34EBAP	X	10.50	0.32	6.67	10.40	0.32	6.02
38Z4D7		10.23	0.05	1.10	10.13	0.05	1.00
3FRB7J		10.19	0.01	0.18	10.11	0.03	0.63
3GKG9V		10.12	-0.06	-1.26	10.01	-0.07	-1.22
43FHX4	X	10.05	-0.13	-2.60	9.90	-0.18	-3.27
4FJQUZ		10.20	0.02	0.49	10.13	0.05	0.91
64NYNL		10.22	0.04	0.80	10.11	0.03	0.63
76T4EF	X	10.10	-0.08	-1.57	10.20	0.12	2.30
7DQU4W		10.22	0.04	0.90	10.11	0.03	0.63
7QC8F7	X	10.13	-0.05	-1.06	10.17	0.09	1.75
7R7UUV		10.16	-0.02	-0.44	10.05	-0.03	-0.48
7ZLCTW	*	10.04	-0.14	-2.81	9.96	-0.12	-2.24
996PKR	X	10.40	0.22	4.61	10.30	0.22	4.16
9RZ8QM	*	10.10	-0.08	-1.57	9.95	-0.13	-2.34
AAW8YY		10.20	0.02	0.49	10.10	0.02	0.45
AWRNNY		10.22	0.04	0.90	10.13	0.05	1.00
AZQZJY		10.17	-0.01	-0.13	10.10	0.02	0.35
B7AURF		10.21	0.03	0.69	10.12	0.04	0.82
BCEL3Y		10.15	-0.03	-0.54	10.05	-0.03	-0.57
BH6Y4M		10.15	-0.03	-0.54	10.09	0.01	0.17
BH7LP8		10.18	0.00	0.07	10.07	-0.01	-0.11
BRZUAX		10.18	0.00	-0.03	10.08	0.00	-0.02
BT6LWJ		10.16	-0.02	-0.34	10.09	0.01	0.17
BYRE8J		10.13	-0.05	-1.06	10.02	-0.06	-1.13
CBJAYJ		10.22	0.04	0.80	10.10	0.02	0.35
CEL42U		10.17	-0.01	-0.13	10.09	0.01	0.17
D8HLVG		10.06	-0.12	-2.50	9.95	-0.13	-2.34
DEDQNH		10.19	0.01	0.18	10.10	0.02	0.35
DPV6RK		10.20	0.02	0.49	10.10	0.02	0.45
DUVE3M		10.19	0.01	0.28	10.11	0.03	0.54
DY8HTN		10.20	0.02	0.49	10.10	0.02	0.45

**ASEV-CTS Wine Industry Interlaboratory Testing Program****Report #061
Spring 2019****Analysis 901
Ethanol (% of volume)**

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
E679T7		10.22	0.04	0.80	10.11	0.03	0.54
E7H6VP		10.21	0.03	0.69	10.11	0.03	0.63
EFLBUX		10.17	-0.01	-0.13	10.06	-0.02	-0.30
EN4MAJ		10.17	-0.01	-0.13	10.07	-0.01	-0.20
ERKTP7		10.15	-0.03	-0.54	10.06	-0.02	-0.39
FE92GQ		10.22	0.04	0.80	10.09	0.01	0.26
G3DABD		10.11	-0.07	-1.47	9.99	-0.09	-1.59
GGADUH		10.24	0.06	1.31	10.16	0.08	1.56
GJ48JZ		10.17	-0.01	-0.13	10.07	-0.01	-0.11
GKD9DK		10.23	0.05	1.00	10.16	0.08	1.47
GRA4D6		10.22	0.04	0.90	10.11	0.03	0.54
GZ8NLR		10.14	-0.04	-0.75	10.05	-0.03	-0.48
HLFLDJ		10.12	-0.06	-1.26	10.00	-0.08	-1.41
HMACHD	X	9.72	-0.46	-9.50	9.71	-0.37	-6.79
JBVCM6		10.21	0.03	0.69	10.11	0.03	0.54
JLYKBG	*	10.06	-0.12	-2.40	9.94	-0.14	-2.52
JPGRQ4		10.19	0.01	0.28	10.09	0.01	0.17
KC42AE		10.13	-0.05	-1.06	10.03	-0.05	-0.94
KRFK2E	*	10.20	0.02	0.49	10.15	0.07	1.38
KWAL28		10.17	-0.01	-0.13	10.06	-0.02	-0.30
KYJM7E	X	10.99	0.81	16.76	10.86	0.78	14.56
LDUMFA		10.16	-0.02	-0.34	10.06	-0.02	-0.39
LXKLWG	X	10.17	-0.01	-0.23	10.13	0.05	0.91
MBLUYG	X	10.38	0.20	4.19	10.10	0.02	0.45
MBPGEA		10.23	0.05	1.00	10.12	0.04	0.82
MKWWKG		10.15	-0.03	-0.65	10.04	-0.04	-0.67
MRPDQD		10.24	0.06	1.21	10.17	0.09	1.75
N3TWUT		10.22	0.04	0.80	10.16	0.08	1.47
NHLH89		10.19	0.01	0.28	10.09	0.01	0.26
NUYH42		10.24	0.06	1.21	10.14	0.06	1.19
NVMATC		10.21	0.03	0.69	10.10	0.02	0.45
NVPZ2F		10.26	0.08	1.72	10.16	0.08	1.47
P69TT4		10.16	-0.02	-0.34	10.06	-0.02	-0.39
P8GQHD		10.11	-0.07	-1.37	9.98	-0.10	-1.78
PGMQVL		10.18	0.00	0.07	10.07	-0.01	-0.11

**ASEV-CTS Wine Industry Interlaboratory Testing Program****Report #061
Spring 2019****Analysis 901
Ethanol (% of volume)**

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
PY7NWD		10.12	-0.06	-1.26	10.01	-0.07	-1.22
QM6FVL		10.27	0.09	1.83	10.17	0.09	1.65
QYL8GB	X	10.18	0.00	-0.03	10.01	-0.07	-1.22
R2MM8D		10.14	-0.04	-0.85	10.03	-0.05	-0.85
RJZCCX		10.21	0.03	0.59	10.09	0.01	0.26
RZ7JQZ		10.18	0.00	0.07	10.07	-0.01	-0.11
T84MXA	X	9.90	-0.28	-5.69	9.87	-0.21	-3.91
TGAA7A		10.21	0.03	0.69	10.11	0.03	0.63
TJHJJ2		10.29	0.11	2.27	10.18	0.10	1.90
TNBPW		10.25	0.07	1.41	10.13	0.05	0.91
TNTTAA	X	10.20	0.02	0.49	10.21	0.13	2.49
TYC8DC	*	10.09	-0.09	-1.88	9.94	-0.14	-2.52
TYFK6E		10.11	-0.07	-1.37	10.01	-0.07	-1.32
U2F6D8		10.18	0.00	0.07	10.08	0.00	0.08
UZ2TJ9		10.16	-0.02	-0.44	10.05	-0.03	-0.57
V429NP	*	10.12	-0.06	-1.26	10.05	-0.03	-0.48
V772F3		10.24	0.06	1.21	10.14	0.06	1.10
VBYWLG		10.15	-0.03	-0.54	10.05	-0.03	-0.48
VMB9U6		10.20	0.02	0.38	10.10	0.02	0.45
W936KU		10.21	0.03	0.69	10.10	0.02	0.45
WM9Z4W		10.12	-0.06	-1.16	10.03	-0.05	-0.85
X2MGRD		10.13	-0.05	-0.96	10.03	-0.05	-0.94
X3H673	X	10.58	0.40	8.21	10.25	0.17	3.23
X7C3E7	X	10.30	0.12	2.55	9.98	-0.10	-1.87
XDXVQ7		10.18	0.00	0.07	10.11	0.03	0.54
XTTBYC		10.18	0.00	0.07	10.08	0.00	0.08
Y43DP3		10.24	0.06	1.21	10.14	0.06	1.10
Y79XEN		10.21	0.03	0.69	10.10	0.02	0.45
YDDPQ8		10.16	-0.02	-0.44	10.05	-0.03	-0.48
YEMJNR	X	10.41	0.23	4.81	10.12	0.04	0.82
YH3E4P		10.16	-0.02	-0.34	10.04	-0.04	-0.67
YNDFAT	X	10.41	0.23	4.81	10.04	-0.04	-0.76
YRRXQB	X	10.17	-0.01	-0.23	9.99	-0.09	-1.69
ZGMEKZ		10.12	-0.06	-1.16	10.02	-0.06	-1.04



**Analysis 901
Ethanol (% of volume)**

Grand Means	Summary Statistics	
10.176 percent		10.076 percent
Std Dev Btwn Labs	0.049 percent	0.054 percent
Statistics based on 87 of 104 reporting participants		

Wines tested: SA21: Rose; SA22: Rose

Comments on Assigned Data Flags for Test #901

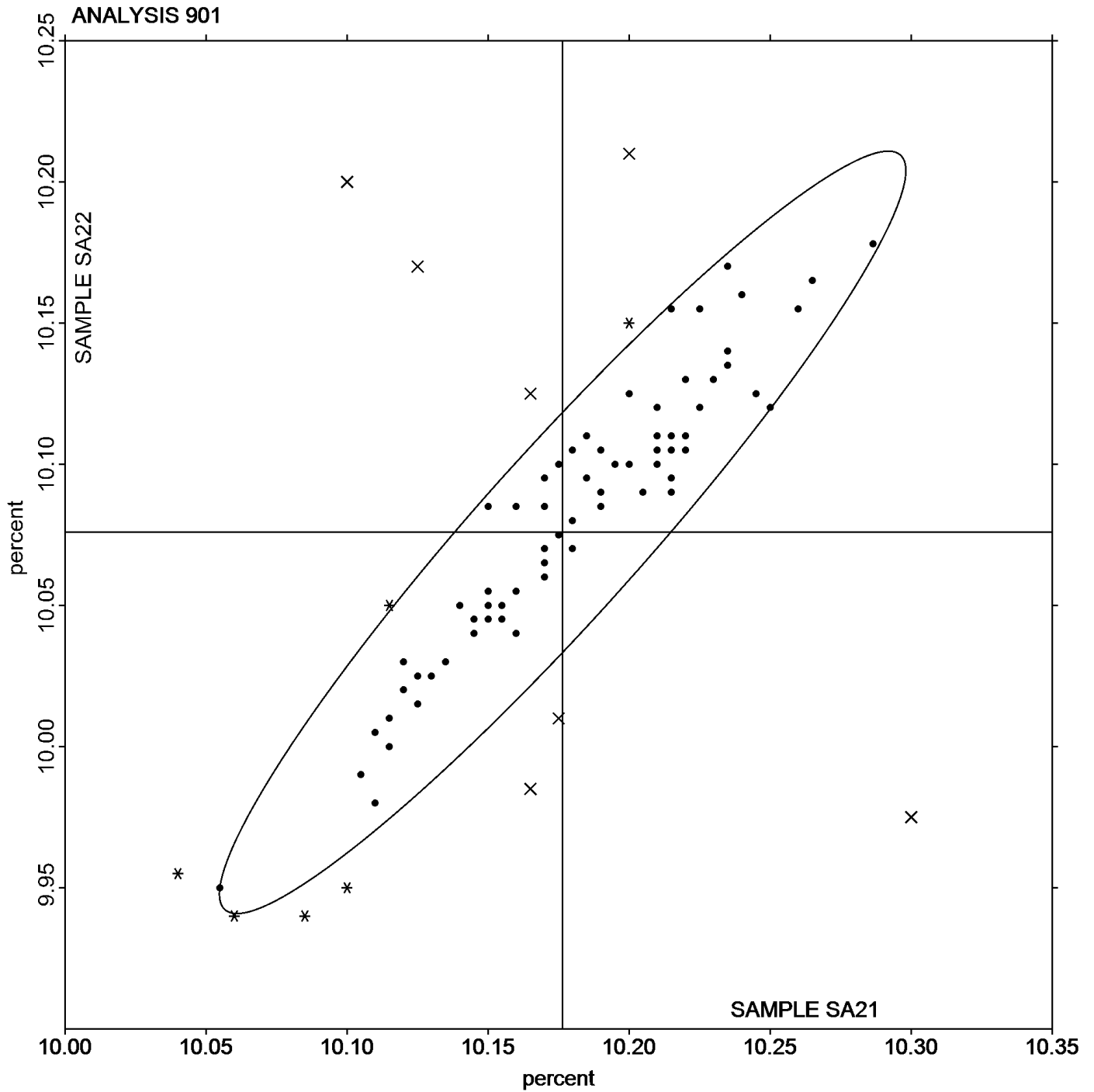
- YNDFAT (X) - Inconsistent in testing between samples, data for Sample SA21 are high.
- 996PKR (X) - Data for both samples are high. Possible Systematic Error.
- KYJM7E (X) - Data for both samples are high.
- 43FH4 (X) - Inconsistent in testing between samples, data for Sample SA22 are low.
- TNTTAA (X) - Inconsistent in testing between samples.
- MBLUYG (X) - Inconsistent in testing between samples, data for Sample SA21 are high.
- 7QC8F7 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample SA21.
- YRRXQB (X) - Inconsistent in testing between samples.
- 76T4EF (X) - Inconsistent in testing between samples.
- 34EBAP (X) - Data for both samples are high. Possible Systematic Error.
- YEMJNR (X) - Inconsistent in testing between samples, data for Sample SA21 are high.
- HMACHD (X) - Data for both samples are low. Inconsistent within the determinations of sample SA21.
- X7C3E7 (X) - Inconsistent in testing between samples.
- LXKLWG (X) - Inconsistent in testing between samples.
- T84MXA (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of sample SA22.
- X3H673 (X) - Data for both samples are high. Inconsistent within the determinations of sample SA22.
- QYL8GB (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample SA21.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA21			Sample SA22			Labs Incl / Rpt
	<i>Rose</i>			<i>Rose</i>			
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Ebulliometer Method	10.167	0.058	-0.01	10.067	0.104	-0.01	3/7
Gas Chromatography Method	10.236	0.067	0.06	10.129	0.065	0.05	3/4
Near Infrared Method	10.181	0.037	0.00	10.082	0.038	0.01	64/72
Dist. / Density Method	10.148	0.069	-0.03	10.042	0.071	-0.03	10/13
FTIR	10.142	0.075	-0.03	10.035	0.093	-0.04	6/7
Other _____	10.235	0.000	0.06	10.170	0.000	0.09	1/1



Analysis 901
Ethanol (% of volume)





ASEV-CTS Wine Industry Interlaboratory Testing Program
Analysis 902
Total Sulfur Dioxide

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
27PNMY		158.5	15.4	1.69	163.0	15.4	1.80
2EJUGZ		148.0	4.9	0.54	148.5	0.9	0.10
2TF9E9		140.0	-3.1	-0.34	142.5	-5.1	-0.60
2WEM2Y		148.8	5.7	0.63	153.9	6.2	0.73
34EBAP	X	128.0	-15.1	-1.65	120.0	-27.6	-3.24
38Z4D7		139.5	-3.6	-0.39	142.5	-5.1	-0.60
3FRB7J		147.0	3.9	0.43	151.0	3.4	0.40
3GKG9V		136.5	-6.6	-0.72	145.0	-2.6	-0.31
43FHX4	*	133.0	-10.1	-1.10	147.5	-0.1	-0.01
4FJQUZ		146.4	3.4	0.37	153.0	5.4	0.64
76T4EF		144.0	0.9	0.10	148.0	0.4	0.05
7DQU4W		134.4	-8.7	-0.95	138.0	-9.6	-1.13
7QC8F7	*	157.5	14.4	1.58	153.5	5.9	0.69
7ZLCTW		152.0	8.9	0.97	154.0	6.4	0.75
996PKR		155.0	11.9	1.30	157.0	9.4	1.10
AAW8YY		152.5	9.4	1.03	152.5	4.9	0.57
AWRNNY		136.0	-7.1	-0.77	143.0	-4.6	-0.54
AZQZJY		147.5	4.4	0.48	156.0	8.4	0.98
B7AURF		125.0	-18.1	-1.98	129.5	-18.1	-2.12
BCEL3Y		136.5	-6.6	-0.72	140.0	-7.6	-0.89
BH6Y4M		147.5	4.4	0.48	149.0	1.4	0.16
BH7LP8	*	150.0	6.9	0.76	162.0	14.4	1.69
BRZUAX		145.5	2.4	0.26	149.0	1.4	0.16
BT6LWJ		141.5	-1.6	-0.17	147.5	-0.1	-0.01
BYRE8J		151.5	8.4	0.92	150.5	2.9	0.34
CBJAYJ		155.5	12.4	1.36	156.0	8.4	0.98
CEL42U		128.0	-15.1	-1.65	133.5	-14.1	-1.65
D8HLVG		152.0	8.9	0.97	155.0	7.4	0.87
DEDQNH		125.5	-17.6	-1.92	128.5	-19.1	-2.24
DPV6RK		145.9	2.8	0.31	145.9	-1.7	-0.20
DUVE3M		130.5	-12.6	-1.37	136.0	-11.6	-1.36
DY8HTN		151.0	7.9	0.87	156.0	8.4	0.98
E679T7		140.0	-3.1	-0.34	145.0	-2.6	-0.31
E7H6VP		143.0	-0.1	-0.01	145.0	-2.6	-0.31
EFLBUX		136.0	-7.1	-0.77	145.0	-2.6	-0.31



ASEV-CTS Wine Industry Interlaboratory Testing Program
Analysis 902
Total Sulfur Dioxide

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
EN4MAJ		130.0	-13.1	-1.43	142.5	-5.1	-0.60
ERKTP7		130.0	-13.1	-1.43	131.5	-16.1	-1.89
FE92GQ		141.5	-1.6	-0.17	150.0	2.4	0.28
G3DABD		152.5	9.4	1.03	161.5	13.9	1.63
GJ48JZ		137.0	-6.1	-0.66	141.5	-6.1	-0.72
GKD9DK	*	165.0	21.9	2.40	163.0	15.4	1.80
GRA4D6		136.5	-6.6	-0.72	142.0	-5.6	-0.66
GZ8NLR		151.9	8.8	0.96	156.4	8.8	1.03
HLFLDJ		135.0	-8.1	-0.88	141.0	-6.6	-0.77
HMACHD	X	119.0	-24.1	-2.63	119.0	-28.6	-3.35
JBVCM6		146.0	2.9	0.32	153.5	5.9	0.69
JLYKBG		121.0	-22.1	-2.41	130.5	-17.1	-2.01
JPGRQ4		148.3	5.3	0.57	146.1	-1.6	-0.18
KC42AE		129.5	-13.6	-1.48	136.0	-11.6	-1.36
KWAL28		144.5	1.4	0.16	149.5	1.9	0.22
KYJM7E	X	176.3	33.2	3.63	181.5	33.9	3.97
LDUMFA		154.5	11.4	1.25	158.5	10.9	1.28
LXKLWG		140.0	-3.1	-0.34	142.5	-5.1	-0.60
MBLUYG		139.1	-4.0	-0.43	147.7	0.1	0.01
MBPGEA		140.5	-2.6	-0.28	148.5	0.9	0.10
MKWWKG		141.0	-2.1	-0.23	142.5	-5.1	-0.60
MRPDQD		142.1	-1.0	-0.11	148.1	0.5	0.06
N3TWUT	X	116.0	-27.1	-2.96	115.0	-32.6	-3.82
NHLH89	X	171.3	28.2	3.08	178.0	30.4	3.56
NUYH42		130.0	-13.1	-1.43	136.5	-11.1	-1.30
NVMATC		144.0	0.9	0.10	153.5	5.9	0.69
NVPZ2F		139.0	-4.1	-0.45	143.5	-4.1	-0.48
P69TT4		148.4	5.3	0.58	150.8	3.2	0.38
P8GQHD		154.5	11.4	1.25	157.5	9.9	1.16
PGMQVL		139.2	-3.9	-0.42	143.3	-4.3	-0.50
PY7NWD		150.5	7.4	0.81	156.5	8.9	1.04
QM6FVL	X	179.0	35.9	3.93	195.5	47.9	5.62
QYL8GB		128.6	-14.5	-1.59	138.2	-9.5	-1.11
R2MM8D		147.0	3.9	0.43	148.5	0.9	0.10
RJZCCX		145.5	2.4	0.26	144.0	-3.6	-0.42



ASEV-CTS Wine Industry Interlaboratory Testing Program
Analysis 902
Total Sulfur Dioxide

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
RZ7JQZ		132.0	-11.1	-1.21	135.5	-12.1	-1.42
T84MXA	*	141.5	-1.6	-0.17	154.5	6.9	0.81
TGAA7A		145.0	1.9	0.21	145.0	-2.6	-0.31
TJHJ2		149.7	6.6	0.72	149.6	2.0	0.24
TNBPUW		147.0	3.9	0.43	154.5	6.9	0.81
TNTTAA		134.0	-9.1	-0.99	140.5	-7.1	-0.83
TYC8DC		153.5	10.4	1.14	157.5	9.9	1.16
TYFK6E		158.4	15.3	1.67	161.6	14.0	1.64
U2F6D8		156.0	12.9	1.41	158.0	10.4	1.22
UZ2TJ9		134.5	-8.6	-0.94	135.0	-12.6	-1.48
V429NP		150.5	7.4	0.81	151.5	3.9	0.46
VBYWLG		144.0	0.9	0.10	150.0	2.4	0.28
VMB9U6	X	146.5	3.4	0.37	167.0	19.4	2.27
W936KU		134.0	-9.1	-0.99	141.0	-6.6	-0.77
WM9Z4W		139.0	-4.1	-0.45	142.0	-5.6	-0.66
X2MGRD		151.0	7.9	0.87	153.5	5.9	0.69
X3H673	X	72.5	-70.6	-7.71	76.0	-71.6	-8.40
X7C3E7		139.0	-4.1	-0.45	140.5	-7.1	-0.83
XDXVQ7		147.5	4.4	0.48	153.5	5.9	0.69
XTTBYC		158.0	14.9	1.63	161.0	13.4	1.57
XYHTB3		128.0	-15.1	-1.65	132.0	-15.6	-1.83
Y43DP3		141.0	-2.1	-0.23	146.0	-1.6	-0.19
Y79XEN		148.0	4.9	0.54	156.5	8.9	1.04
YDDPQ8		161.5	18.4	2.01	168.0	20.4	2.39
YH3E4P		138.5	-4.6	-0.50	139.0	-8.6	-1.01
YNDFAT		139.5	-3.6	-0.39	149.0	1.4	0.16
YRRXQB		135.5	-7.6	-0.83	142.5	-5.1	-0.60
ZGMEKZ		136.5	-6.6	-0.72	139.5	-8.1	-0.95



Analysis 902
Total Sulfur Dioxide

Grand Means		Summary Statistics	
	143.08 mg/L		147.61 mg/L
Std Dev Btwn Labs			
	9.15 mg/L		8.53 mg/L
Statistics based on 90 of 98 reporting participants			

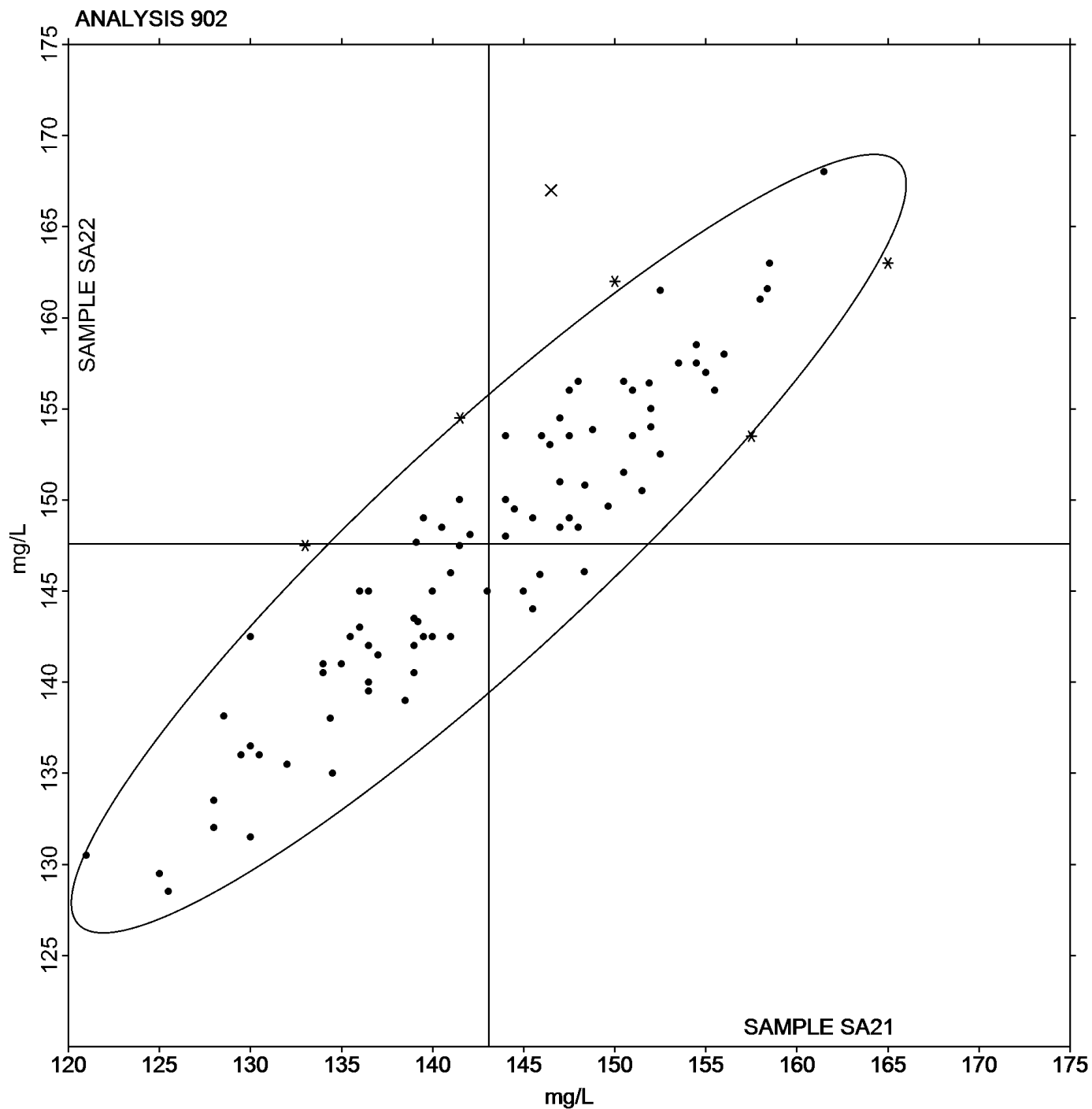
Wines tested: SA21: Rose; SA22: Rose

Comments on Assigned Data Flags for Test #902

- N3TWUT (X) - Data for both samples are low. Possible Systematic Error.
- KYJM7E (X) - Data for both samples are high. Possible Systematic Error.
- QM6FVL (X) - Data for both samples are high. Possible Systematic Error.
- 34EBAP (X) - Inconsistent in testing between samples, data for Sample SA22 are low.
- HMACHD (X) - Inconsistent in testing between samples, data for Sample SA22 are low.
- NHLH89 (X) - Data for both samples are high. Possible Systematic Error.
- VMB9U6 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample SA21.
- X3H673 (X) - Data for both samples are low.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA21 <i>Rose</i>			Sample SA22 <i>Rose</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Please specify method used	136.000	0.000	-7.1	145.000	0.000	-2.6	1/1
Ripper Method	141.388	9.437	-1.7	145.475	8.706	-2.1	45/48
Aeration Oxidation (AO) Method	141.945	9.111	-1.1	146.785	7.847	-0.8	19/19
Segmented Flow Analyzer	144.829	9.090	1.7	151.764	7.425	4.2	7/7
Enzymatic Method	151.167	3.884	8.1	158.167	3.329	10.6	3/4
Colorimetric Analyzer	146.900	9.967	3.8	150.650	9.562	3.0	6/8
FTIR	146.750	8.132	3.7	152.000	13.435	4.4	2/3
Flow Injection Analysis	148.494	5.931	5.4	151.356	5.286	3.8	7/8



Analysis 903
Free Sulfur Dioxide

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
27PNMY		26.50	1.31	0.53	29.00	2.47	0.95
2EJUGZ		30.50	5.31	2.15	30.50	3.97	1.52
2TF9E9		29.00	3.81	1.54	29.50	2.97	1.14
2UBWTX		24.03	-1.16	-0.47	27.33	0.80	0.31
2WEM2Y		22.30	-2.89	-1.17	24.55	-1.98	-0.76
34EBAP		25.00	-0.19	-0.08	29.00	2.47	0.95
38Z4D7		23.00	-2.19	-0.89	24.00	-2.53	-0.97
3FRB7J		23.00	-2.19	-0.89	24.90	-1.63	-0.62
3GKG9V		24.00	-1.19	-0.48	25.00	-1.53	-0.58
43FHX4		29.00	3.81	1.54	30.50	3.97	1.52
4FJQUZ		23.01	-2.19	-0.89	25.31	-1.22	-0.47
64NYNL		23.00	-2.19	-0.89	24.00	-2.53	-0.97
72VPRQ		23.00	-2.19	-0.89	23.00	-3.53	-1.35
76T4EF		28.00	2.81	1.14	31.00	4.47	1.71
7DQU4W		26.00	0.81	0.33	25.20	-1.33	-0.51
7QC8F7	X	29.50	4.31	1.74	23.00	-3.53	-1.35
7R7UUV		27.50	2.31	0.93	28.50	1.97	0.76
7ZLCTW		24.00	-1.19	-0.48	25.00	-1.53	-0.58
996PKR		30.00	4.81	1.94	32.00	5.47	2.09
9RZ8QM		26.40	1.21	0.49	26.40	-0.13	-0.05
AAW8YY		24.50	-0.69	-0.28	25.50	-1.03	-0.39
AWRNNY	X	29.00	3.81	1.54	26.00	-0.53	-0.20
AZQZJY		25.50	0.31	0.12	27.00	0.47	0.18
B7AURF		21.50	-3.69	-1.49	22.50	-4.03	-1.54
BCEL3Y		23.00	-2.19	-0.89	23.00	-3.53	-1.35
BH6Y4M		23.50	-1.69	-0.68	25.50	-1.03	-0.39
BH7LP8		24.00	-1.19	-0.48	26.00	-0.53	-0.20
BRZUAX		24.00	-1.19	-0.48	25.00	-1.53	-0.58
BT6LWJ		24.50	-0.69	-0.28	25.00	-1.53	-0.58
BYRE8J		25.00	-0.19	-0.08	26.50	-0.03	-0.01
CBJAYJ		23.00	-2.19	-0.89	25.50	-1.03	-0.39
CEL42U		21.00	-4.19	-1.70	23.00	-3.53	-1.35
D8HLVG		24.50	-0.69	-0.28	26.50	-0.03	-0.01
DEDQNH		20.35	-4.84	-1.96	23.00	-3.53	-1.35
DPV6RK		28.20	3.01	1.22	30.70	4.17	1.60



ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #061
Spring 2019

Analysis 903 Free Sulfur Dioxide

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
DUVE3M		25.00	-0.19	-0.08	26.00	-0.53	-0.20
DY8HTN		29.50	4.31	1.74	31.50	4.97	1.90
E679T7		24.00	-1.19	-0.48	24.00	-2.53	-0.97
E7H6VP		22.00	-3.19	-1.29	24.00	-2.53	-0.97
EFLBUX		26.50	1.31	0.53	30.00	3.47	1.33
EN4MAJ		25.50	0.31	0.12	27.00	0.47	0.18
ERKTP7		24.00	-1.19	-0.48	24.50	-2.03	-0.78
FE92GQ		26.00	0.81	0.33	27.50	0.97	0.37
G3DABD		26.00	0.81	0.33	27.50	0.97	0.37
GGADUH		26.00	0.81	0.33	28.00	1.47	0.56
GJ48JZ		23.00	-2.19	-0.89	24.00	-2.53	-0.97
GKD9DK	*	30.50	5.31	2.15	30.00	3.47	1.33
GRA4D6		27.50	2.31	0.93	28.50	1.97	0.76
GZ8NLR		27.15	1.96	0.79	29.95	3.42	1.31
HLFLDJ		23.00	-2.19	-0.89	25.00	-1.53	-0.58
HMACHD	X	28.50	3.31	1.34	26.00	-0.53	-0.20
JBVCM6	*	29.00	3.81	1.54	32.50	5.97	2.29
JLYKBG		23.50	-1.69	-0.68	25.00	-1.53	-0.58
JPGRQ4		26.00	0.81	0.33	27.00	0.47	0.18
KC42AE		26.00	0.81	0.33	27.50	0.97	0.37
KRFK2E		25.20	0.01	0.00	26.80	0.27	0.10
KWAL28		25.00	-0.19	-0.08	27.00	0.47	0.18
KYJM7E		25.00	-0.19	-0.08	27.50	0.97	0.37
LDUMFA		27.00	1.81	0.73	27.50	0.97	0.37
LXKLWG		26.00	0.81	0.33	25.50	-1.03	-0.39
MBLUYG	X	31.03	5.84	2.36	36.18	9.65	3.69
MBPGEA		24.00	-1.19	-0.48	25.00	-1.53	-0.58
MKWWKG		25.50	0.31	0.12	27.50	0.97	0.37
MRPDQD		23.00	-2.19	-0.89	25.25	-1.28	-0.49
N3TWUT		24.00	-1.19	-0.48	25.00	-1.53	-0.58
NHLH89		25.00	-0.19	-0.08	26.85	0.32	0.12
NUYH42		23.00	-2.19	-0.89	25.00	-1.53	-0.58
NVMATC		27.00	1.81	0.73	27.50	0.97	0.37
NVPZ2F		24.00	-1.19	-0.48	25.00	-1.53	-0.58
P69TT4		25.58	0.39	0.16	27.22	0.69	0.26



ASEV-CTS Wine Industry Interlaboratory Testing Program
Analysis 903
Free Sulfur Dioxide

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
P8GQHD		25.00	-0.19	-0.08	24.50	-2.03	-0.78
PGMQVL		21.85	-3.34	-1.35	23.30	-3.23	-1.24
PY7NWD		26.50	1.31	0.53	27.00	0.47	0.18
QM6FVL	X	34.00	8.81	3.56	36.50	9.97	3.82
QYL8GB		24.85	-0.34	-0.14	27.90	1.37	0.53
R2MM8D	*	32.50	7.31	2.96	33.50	6.97	2.67
RJZCCX	*	30.50	5.31	2.15	34.00	7.47	2.86
RZ7JQZ		21.50	-3.69	-1.49	23.00	-3.53	-1.35
T84MXA		26.00	0.81	0.33	27.50	0.97	0.37
TGAA7A		25.00	-0.19	-0.08	26.00	-0.53	-0.20
TJHJ2		25.01	-0.18	-0.07	26.10	-0.43	-0.17
TNBPW		26.50	1.31	0.53	28.00	1.47	0.56
TNTTAA		22.80	-2.39	-0.97	24.20	-2.33	-0.89
TYC8DC		28.00	2.81	1.14	29.50	2.97	1.14
U2F6D8		30.00	4.81	1.94	30.00	3.47	1.33
UZ2TJ9		23.00	-2.19	-0.89	25.50	-1.03	-0.39
V429NP		24.00	-1.19	-0.48	24.00	-2.53	-0.97
V772F3		22.80	-2.39	-0.97	24.15	-2.38	-0.91
VBYWLG		27.00	1.81	0.73	29.00	2.47	0.95
VMB9U6	X	32.50	7.31	2.96	31.00	4.47	1.71
W936KU	X	14.50	-10.69	-4.33	14.50	-12.03	-4.60
WM9Z4W		24.00	-1.19	-0.48	25.00	-1.53	-0.58
X2MGRD		25.50	0.31	0.12	25.50	-1.03	-0.39
X3H673		26.50	1.31	0.53	29.00	2.47	0.95
X7C3E7	*	25.00	-0.19	-0.08	23.00	-3.53	-1.35
XDXVQ7		22.00	-3.19	-1.29	24.00	-2.53	-0.97
XTTBYC		27.00	1.81	0.73	28.00	1.47	0.56
XYHTB3		21.50	-3.69	-1.49	21.00	-5.53	-2.12
Y43DP3	X	34.00	8.81	3.56	33.00	6.47	2.48
Y79XEN	*	30.50	5.31	2.15	29.00	2.47	0.95
YDDPQ8		24.00	-1.19	-0.48	24.00	-2.53	-0.97
YH3E4P	*	21.00	-4.19	-1.70	25.50	-1.03	-0.39
YNDFAT		23.50	-1.69	-0.68	23.00	-3.53	-1.35
YRRXQB	X	21.50	-3.69	-1.49	27.50	0.97	0.37
ZGMEKZ		26.00	0.81	0.33	25.00	-1.53	-0.58



**Analysis 903
Free Sulfur Dioxide**

Grand Means	Summary Statistics	
25.193 mg/L	26.527 mg/L	
Std Dev Btwn Labs	2.613 mg/L	
2.472 mg/L		
Statistics based on 96 of 105 reporting participants		

Wines tested: SA21: Rose; SA22: Rose

Comments on Assigned Data Flags for Test #903

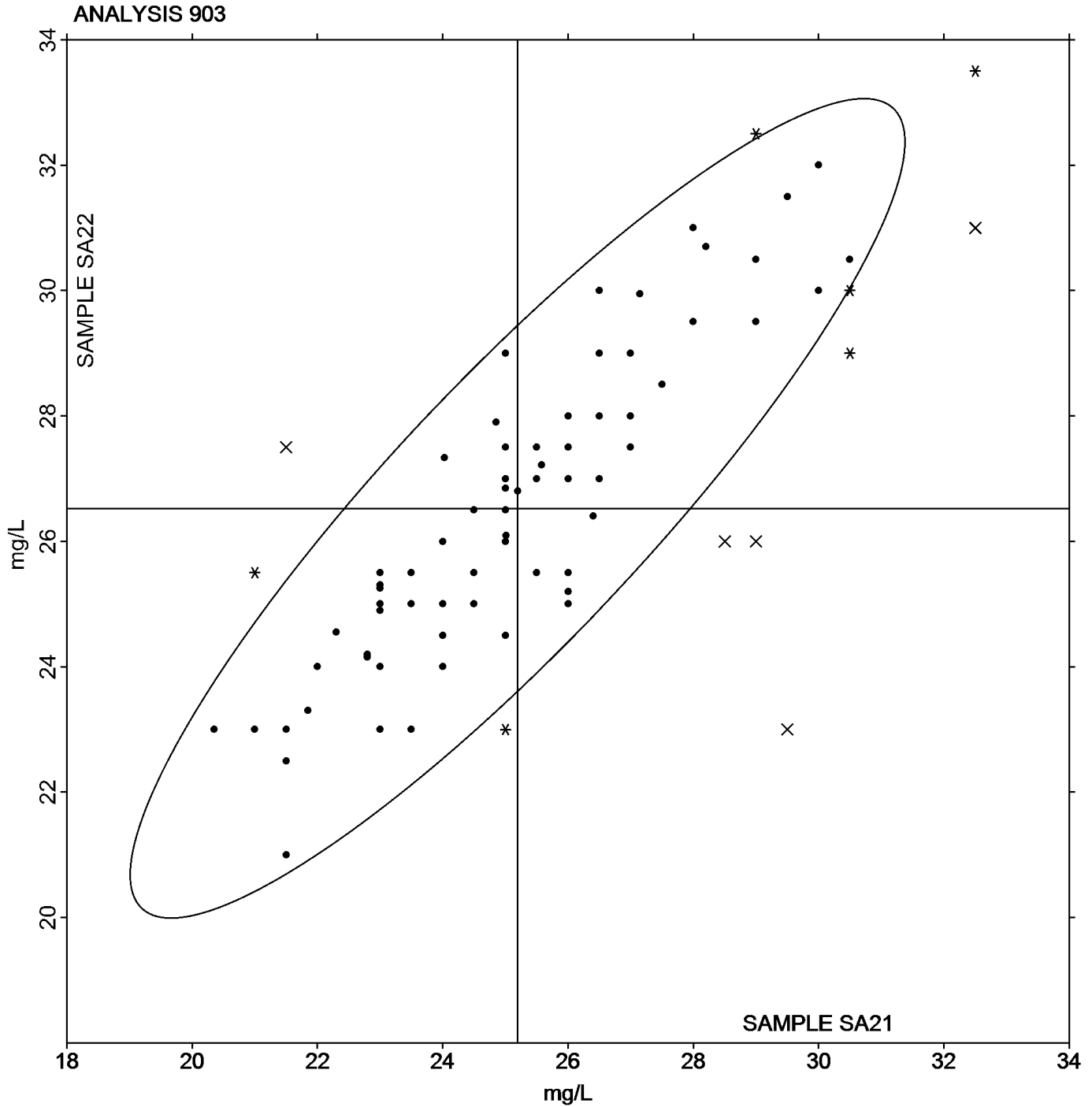
- AWRNNY (X) - Inconsistent in testing between samples.
- MBLUYG (X) - Inconsistent in testing between samples, data for Sample SA22 are high.
- QM6FVL (X) - Data for both samples are high. Possible Systematic Error.
- 7QC8F7 (X) - Inconsistent in testing between samples.
- YRRXQB (X) - Inconsistent in testing between samples.
- W936KU (X) - Data for both samples are low. Possible Systematic Error.
- HMACHD (X) - Inconsistent in testing between samples.
- Y43DP3 (X) - Inconsistent in testing between samples, data for sample SA21 are high. Inconsistent within the determinations of sample SA22.
- VMB9U6 (X) - Inconsistent in testing between samples, data for Sample SA21 are high.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA21 <i>Rose</i>			Sample SA22 <i>Rose</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Please specify method used	24.750	2.475	-0.44	27.625	3.359	1.10	2/2
Ripper Method	25.080	2.792	-0.11	26.194	2.869	-0.33	32/34
Aeration Oxidation (AO) Method	24.956	2.494	-0.24	26.324	2.751	-0.20	36/40
Segmented Flow Analyzer	26.475	2.224	1.28	28.256	2.040	1.73	8/8
Enzymatic Method	28.500	2.828	3.31	29.000	0.000	2.47	2/2
Colormetric Analyzer	24.942	2.091	-0.25	26.242	2.530	-0.29	6/8
Flow Injection Analysis	24.762	1.202	-0.43	26.121	1.123	-0.41	8/8
FTIR	25.750	0.354	0.56	27.500	0.000	0.97	2/3



Analysis 903
Free Sulfur Dioxide





ASEV-CTS Wine Industry Interlaboratory Testing Program
Analysis 904
Titrateable Acidity

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
27PNMY		6.500	-0.077	-0.57	6.600	-0.113	-0.79
2EJUGZ		6.550	-0.027	-0.20	6.700	-0.013	-0.09
2TF9E9		6.800	0.223	1.64	7.000	0.287	2.00
2UBWTX	*	6.540	-0.037	-0.28	6.530	-0.183	-1.27
2WEM2Y		6.635	0.058	0.42	6.775	0.062	0.43
34EBAP		6.750	0.173	1.27	7.000	0.287	2.00
38Z4D7		6.500	-0.077	-0.57	6.650	-0.063	-0.44
3FRB7J		6.555	-0.022	-0.16	6.765	0.052	0.36
3GKG9V	X	6.440	-0.137	-1.01	6.310	-0.403	-2.81
43FHX4		6.650	0.073	0.54	6.800	0.087	0.61
4FJQUZ		6.362	-0.215	-1.59	6.509	-0.204	-1.42
64NYNL		6.600	0.023	0.17	6.700	-0.013	-0.09
72VPRQ	X	6.170	-0.407	-3.00	6.460	-0.253	-1.76
76T4EF		6.500	-0.077	-0.57	6.700	-0.013	-0.09
7DQU4W		6.550	-0.027	-0.20	6.800	0.087	0.61
7QC8F7	X	7.300	0.723	5.33	7.300	0.587	4.09
7R7UUV		6.550	-0.027	-0.20	6.700	-0.013	-0.09
7ZLCTW		6.550	-0.027	-0.20	6.675	-0.038	-0.26
996PKR		6.530	-0.047	-0.35	6.680	-0.033	-0.23
9RZ8QM		6.600	0.023	0.17	6.750	0.037	0.26
AAW8YY		6.370	-0.207	-1.53	6.480	-0.233	-1.62
AWRNNY		6.670	0.093	0.68	6.760	0.047	0.33
AZQZJY		6.550	-0.027	-0.20	6.620	-0.093	-0.65
B7AURF		6.650	0.073	0.54	6.850	0.137	0.96
BCEL3Y		6.510	-0.067	-0.50	6.625	-0.088	-0.61
BH6Y4M		6.500	-0.077	-0.57	6.700	-0.013	-0.09
BH7LP8		6.400	-0.177	-1.31	6.600	-0.113	-0.79
BRZUAX		6.600	0.023	0.17	6.700	-0.013	-0.09
BT6LWJ		6.760	0.183	1.35	6.920	0.207	1.44
BYRE8J		6.565	-0.012	-0.09	6.710	-0.003	-0.02
CBJAYJ		6.660	0.083	0.61	6.820	0.107	0.75
CEL42U		6.600	0.023	0.17	6.700	-0.013	-0.09
D8HLVG		6.500	-0.077	-0.57	6.700	-0.013	-0.09
DEDQNH	*	6.350	-0.227	-1.68	6.635	-0.078	-0.54
DPV6RK	*	6.380	-0.197	-1.46	6.380	-0.333	-2.32



ASEV-CTS Wine Industry Interlaboratory Testing Program

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Analysis 904 Titratable Acidity

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
DUVE3M		6.555	-0.022	-0.16	6.700	-0.013	-0.09
DY8HTN		6.500	-0.077	-0.57	6.550	-0.163	-1.13
E679T7		6.560	-0.017	-0.13	6.745	0.032	0.22
E7H6VP	X	7.400	0.823	6.07	7.400	0.687	4.79
EN4MAJ		6.860	0.283	2.08	6.970	0.257	1.79
ERKTP7		6.550	-0.027	-0.20	6.550	-0.163	-1.13
FE92GQ		6.600	0.023	0.17	6.700	-0.013	-0.09
G3DABD		6.675	0.098	0.72	6.800	0.087	0.61
GGADUH		6.590	0.013	0.09	6.730	0.017	0.12
GJ48JZ		6.550	-0.027	-0.20	6.665	-0.048	-0.33
GKD9DK		6.550	-0.027	-0.20	6.650	-0.063	-0.44
GRA4D6		6.635	0.058	0.42	6.750	0.037	0.26
GZ8NLR		6.720	0.143	1.05	6.845	0.132	0.92
HLFLDJ		6.500	-0.077	-0.57	6.600	-0.113	-0.79
HMACHD	X	4.050	-2.527	-18.63	4.100	-2.613	-18.21
JBVCM6		6.545	-0.032	-0.24	6.680	-0.033	-0.23
JLYKBG		6.755	0.178	1.31	6.860	0.147	1.03
JPGRQ4		6.665	0.088	0.65	6.660	-0.053	-0.37
KC42AE	*	6.300	-0.277	-2.05	6.550	-0.163	-1.13
KRFK2E		6.865	0.288	2.12	7.050	0.337	2.35
KWAL28		6.620	0.043	0.31	6.720	0.007	0.05
KYJM7E	X	8.615	2.038	15.02	8.830	2.117	14.76
LDUMFA		6.510	-0.067	-0.50	6.650	-0.063	-0.44
LXKLWG		6.825	0.248	1.83	6.870	0.157	1.10
MBLUYG		6.450	-0.127	-0.94	6.600	-0.113	-0.79
MBPGEA		6.500	-0.077	-0.57	6.700	-0.013	-0.09
MKWWKG		6.525	-0.052	-0.39	6.640	-0.073	-0.51
MRPDQD	X	6.775	0.198	1.46	6.635	-0.078	-0.54
N3TWUT	X	6.955	0.378	2.78	7.300	0.587	4.09
NHLH89		6.427	-0.151	-1.11	6.597	-0.116	-0.81
NUYH42		6.545	-0.032	-0.24	6.690	-0.023	-0.16
NVMATC		6.550	-0.027	-0.20	6.700	-0.013	-0.09
NVPZ2F		6.300	-0.277	-2.05	6.400	-0.313	-2.18
P69TT4		6.550	-0.027	-0.20	6.590	-0.123	-0.86
P8GQHD		6.500	-0.077	-0.57	6.550	-0.163	-1.13



Analysis 904
Titratable Acidity

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
PGMQVL		6.400	-0.177	-1.31	6.600	-0.113	-0.79
PY7NWD		6.635	0.058	0.42	6.710	-0.003	-0.02
QM6FVL	X	7.110	0.533	3.93	7.245	0.532	3.71
QYL8GB		6.580	0.003	0.02	6.720	0.007	0.05
R2MM8D		6.550	-0.027	-0.20	6.700	-0.013	-0.09
RJZCCX		6.430	-0.147	-1.09	6.690	-0.023	-0.16
RZ7JQZ		6.665	0.088	0.65	6.815	0.102	0.71
T84MXA	X	7.325	0.748	5.51	7.415	0.702	4.89
TGAA7A		6.700	0.123	0.90	6.850	0.137	0.96
TJHJJ2		6.425	-0.152	-1.12	6.460	-0.253	-1.76
TNBPUW		6.465	-0.112	-0.83	6.590	-0.123	-0.86
TNTTAA	*	6.800	0.223	1.64	6.800	0.087	0.61
TYC8DC		6.565	-0.012	-0.09	6.730	0.017	0.12
TYFK6E		6.572	-0.005	-0.04	6.725	0.012	0.08
U2F6D8		6.600	0.023	0.17	6.800	0.087	0.61
UZ2TJ9	X	6.250	-0.327	-2.41	6.750	0.037	0.26
V429NP	X	6.150	-0.427	-3.15	6.550	-0.163	-1.13
V772F3		6.575	-0.002	-0.02	6.700	-0.013	-0.09
VBYWLG		6.700	0.123	0.90	6.850	0.137	0.96
VMB9U6		6.750	0.173	1.27	6.900	0.187	1.30
W936KU		6.690	0.113	0.83	6.850	0.137	0.96
WM9Z4W		6.600	0.023	0.17	6.750	0.037	0.26
X3H673	*	6.950	0.373	2.75	7.100	0.387	2.70
X7C3E7	X	7.900	1.323	9.75	8.100	1.387	9.67
XDXVQ7	*	6.950	0.373	2.75	7.100	0.387	2.70
XTTBYC		6.800	0.223	1.64	6.900	0.187	1.30
XYHTB3		6.350	-0.227	-1.68	6.500	-0.213	-1.48
Y43DP3		6.645	0.068	0.50	6.820	0.107	0.75
Y79XEN	X	6.000	-0.577	-4.26	6.100	-0.613	-4.27
YDDPQ8		6.270	-0.307	-2.27	6.370	-0.343	-2.39
YEMJNR		6.650	0.073	0.54	6.800	0.087	0.61
YH3E4P		6.500	-0.077	-0.57	6.650	-0.063	-0.44
YNDFAT		6.515	-0.062	-0.46	6.665	-0.048	-0.33
YRRXQB		6.645	0.068	0.50	6.830	0.117	0.82
ZGMEKZ		6.500	-0.077	-0.57	6.600	-0.113	-0.79



**Analysis 904
Titratable Acidity**

Grand Means	Summary Statistics	
6.5774 g/L as tartaric acid	6.7129 g/L as tartaric acid	6.7129 g/L as tartaric acid
Std Dev Btwn Labs	0.1356 g/L as tartaric acid	0.1435 g/L as tartaric acid
Statistics based on 91 of 105 reporting participants		

Wines tested: SA21: Rose; SA22: Rose

Comments on Assigned Data Flags for Test #904

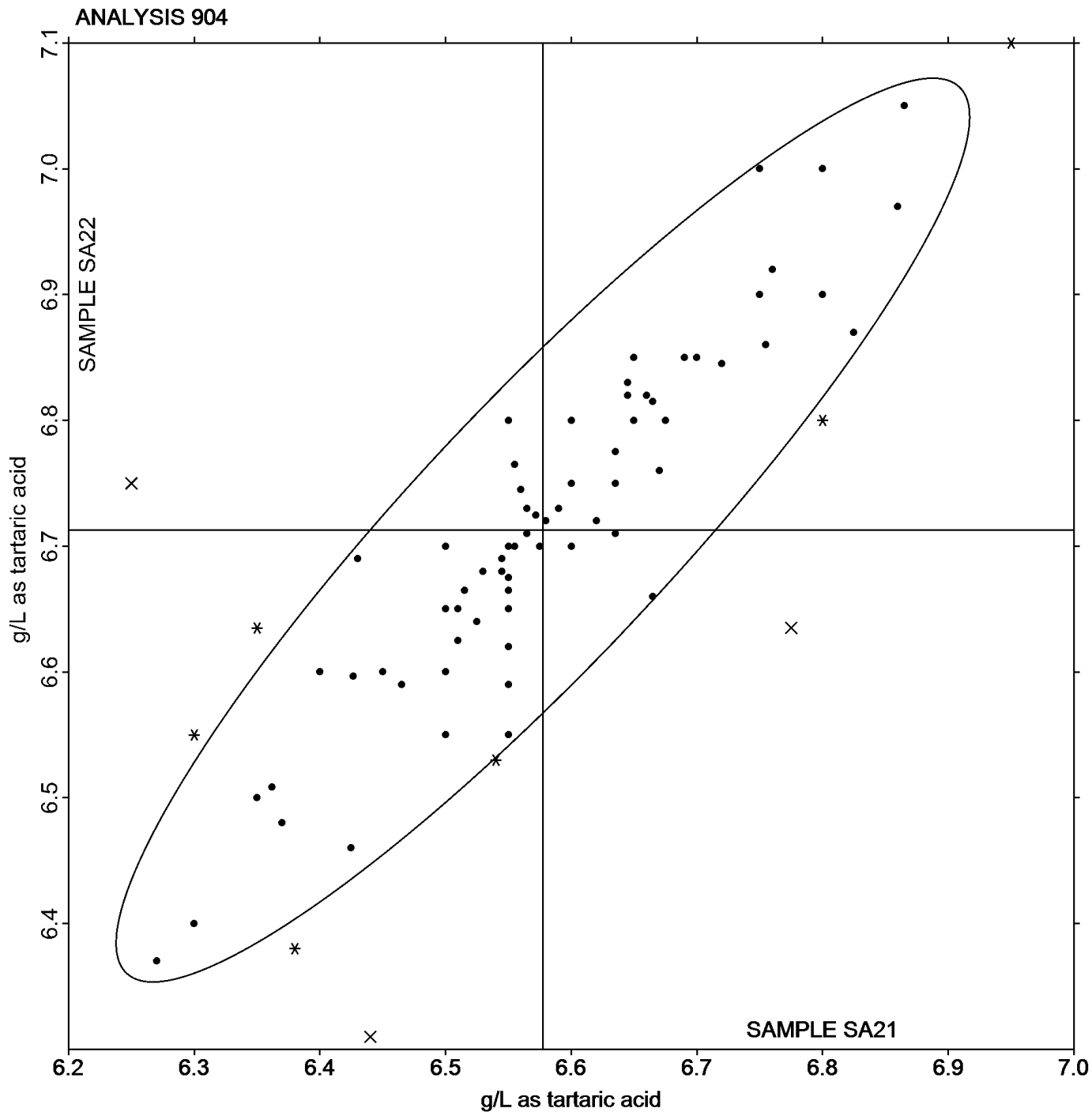
- N3TWUT (X) - Data for both samples are high. Possible Systematic Error.
- UZ2TJ9 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample SA21.
- KYJM7E (X) - Data for both samples are high. Possible Systematic Error.
- 3GKG9V (X) - Inconsistent in testing between samples, data for Sample SA22 are low.
- QM6FVL (X) - Data for both samples are high. Possible Systematic Error.
- 7QC8F7 (X) - Data for both samples are high. Possible Systematic Error.
- Y79XEN (X) - Data for both samples are low. Possible Systematic Error.
- V429NP (X) - Inconsistent in testing between samples, data for Sample SA21 are low.
- 72VPRQ (X) - Inconsistent in testing between samples, data for sample SA21 are low. Inconsistent within the determinations of sample SA21.
- HMACHD (X) - Data for both samples are low.
- X7C3E7 (X) - Data for both samples are high.
- E7H6VP (X) - Data for both samples are high. Possible Systematic Error.
- MRPDQD (X) - Inconsistent in testing between samples.
- T84MXA (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample SA21.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA21 <i>Rose</i>			Sample SA22 <i>Rose</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Autotitration	6.573	0.139	-0.004	6.708	0.143	-0.005	61/66
Manual Titration	6.585	0.139	0.008	6.725	0.158	0.012	25/31
FTIR	6.609	0.082	0.031	6.748	0.043	0.035	4/7
Segmented Flow Analyzer	6.500	0.000	-0.077	6.600	0.000	-0.113	1/1



Analysis 904
Titratable Acidity





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Analysis 905 Volatile Acidity

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
27PNMY		0.3000	0.0485	0.84	0.3150	0.0689	1.26
2EJUGZ		0.2700	0.0185	0.32	0.2550	0.0089	0.16
2TF9E9		0.2600	0.0085	0.15	0.2500	0.0039	0.07
2UBWTX		0.3200	0.0685	1.19	0.3000	0.0539	0.98
2WEM2Y		0.2200	-0.0315	-0.55	0.2050	-0.0411	-0.75
34EBAP	*	0.3900	0.1385	2.40	0.3600	0.1139	2.08
38Z4D7		0.3250	0.0735	1.27	0.3200	0.0739	1.35
3FRB7J		0.1640	-0.0875	-1.52	0.1660	-0.0801	-1.46
3GKG9V		0.2750	0.0235	0.41	0.2500	0.0039	0.07
43FHX4		0.2900	0.0385	0.67	0.2950	0.0489	0.89
4FJQUZ		0.3400	0.0885	1.53	0.3200	0.0739	1.35
64NYNL		0.2500	-0.0015	-0.03	0.2450	-0.0011	-0.02
72VPRQ	X	4.6000	4.3485	75.30	4.6000	4.3539	79.38
76T4EF		0.2550	0.0035	0.06	0.2400	-0.0061	-0.11
7QC8F7	X	0.2600	0.0085	0.15	0.3300	0.0839	1.53
7R7UUV	X	0.3650	0.1135	1.97	0.3900	0.1439	2.62
7ZLCTW		0.2400	-0.0115	-0.20	0.2400	-0.0061	-0.11
996PKR		0.3300	0.0785	1.36	0.3300	0.0839	1.53
9RZ8QM		0.1100	-0.1415	-2.45	0.1100	-0.1361	-2.48
AAW8YY		0.3800	0.1285	2.23	0.3600	0.1139	2.08
AWRNNY		0.2900	0.0385	0.67	0.2600	0.0139	0.25
AZQZJY		0.2500	-0.0015	-0.03	0.2500	0.0039	0.07
B7AURF		0.3250	0.0735	1.27	0.3150	0.0689	1.26
BCEL3Y		0.2250	-0.0265	-0.46	0.2250	-0.0211	-0.39
BH6Y4M		0.3500	0.0985	1.71	0.3500	0.1039	1.89
BH7LP8		0.2100	-0.0415	-0.72	0.2200	-0.0261	-0.48
BRZUAX		0.2100	-0.0415	-0.72	0.2000	-0.0461	-0.84
BT6LWJ		0.3610	0.1095	1.90	0.3690	0.1229	2.24
BYRE8J	*	0.2150	-0.0365	-0.63	0.2500	0.0039	0.07
CBJAYJ		0.2200	-0.0315	-0.55	0.2400	-0.0061	-0.11
CEL42U		0.2300	-0.0215	-0.37	0.2550	0.0089	0.16
D8HLVG		0.1450	-0.1065	-1.84	0.1550	-0.0911	-1.66
DEDQNH		0.1865	-0.0650	-1.13	0.1800	-0.0661	-1.21
DPV6RK		0.1900	-0.0615	-1.06	0.1800	-0.0661	-1.21
DUVE3M		0.3000	0.0485	0.84	0.3200	0.0739	1.35



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Analysis 905 Volatile Acidity

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
DY8HTN		0.2950	0.0435	0.75	0.3150	0.0689	1.26
E679T7		0.2300	-0.0215	-0.37	0.2300	-0.0161	-0.29
E7H6VP		0.1700	-0.0815	-1.41	0.1600	-0.0861	-1.57
EFLBUX		0.2550	0.0035	0.06	0.2250	-0.0211	-0.39
EN4MAJ		0.1900	-0.0615	-1.06	0.1900	-0.0561	-1.02
ERKTP7		0.2750	0.0235	0.41	0.2450	-0.0011	-0.02
FE92GQ	X	0.2500	-0.0015	-0.03	0.1950	-0.0511	-0.93
G3DABD		0.1800	-0.0715	-1.24	0.1850	-0.0611	-1.11
GGADUH		0.2100	-0.0415	-0.72	0.2100	-0.0361	-0.66
GJ48JZ		0.2000	-0.0515	-0.89	0.1900	-0.0561	-1.02
GKD9DK		0.2200	-0.0315	-0.55	0.2400	-0.0061	-0.11
GRA4D6		0.2250	-0.0265	-0.46	0.2250	-0.0211	-0.39
GZ8NLR		0.2220	-0.0295	-0.51	0.2125	-0.0336	-0.61
HLFLDJ	*	0.2600	0.0085	0.15	0.2900	0.0439	0.80
HMACHD		0.2115	-0.0400	-0.69	0.1955	-0.0506	-0.92
JBVCM6		0.2300	-0.0215	-0.37	0.2150	-0.0311	-0.57
JLYKBG	*	0.4200	0.1685	2.92	0.3900	0.1439	2.62
JPGRQ4		0.2250	-0.0265	-0.46	0.2150	-0.0311	-0.57
KC42AE	X	0.4900	0.2385	4.13	0.4700	0.2239	4.08
KWAL28	*	0.2450	-0.0065	-0.11	0.2050	-0.0411	-0.75
KYJM7E		0.2490	-0.0025	-0.04	0.2425	-0.0036	-0.07
LDUMFA		0.2550	0.0035	0.06	0.2500	0.0039	0.07
LXKLWG		0.1750	-0.0765	-1.32	0.1650	-0.0811	-1.48
MBLUYG		0.2880	0.0365	0.63	0.2880	0.0419	0.76
MBPGEA		0.2350	-0.0165	-0.29	0.2250	-0.0211	-0.39
MKWWKG		0.2400	-0.0115	-0.20	0.2400	-0.0061	-0.11
MRPDQD		0.3500	0.0985	1.71	0.3300	0.0839	1.53
N3TWUT		0.2450	-0.0065	-0.11	0.2550	0.0089	0.16
NHLH89		0.2700	0.0185	0.32	0.2650	0.0189	0.34
NUYH42		0.2500	-0.0015	-0.03	0.2450	-0.0011	-0.02
NVMATC		0.1700	-0.0815	-1.41	0.1800	-0.0661	-1.21
P69TT4		0.1800	-0.0715	-1.24	0.1900	-0.0561	-1.02
P8GQHD		0.3100	0.0585	1.01	0.3250	0.0789	1.44
PGMQVL		0.3450	0.0935	1.62	0.3300	0.0839	1.53
PY7NWD		0.2750	0.0235	0.41	0.2600	0.0139	0.25



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WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
QM6FVL		0.1550	-0.0965	-1.67	0.1750	-0.0711	-1.30
QYL8GB	*	0.3000	0.0485	0.84	0.2550	0.0089	0.16
R2MM8D		0.2500	-0.0015	-0.03	0.2350	-0.0111	-0.20
RJZCCX		0.2600	0.0085	0.15	0.2400	-0.0061	-0.11
RZ7JQZ		0.2100	-0.0415	-0.72	0.2100	-0.0361	-0.66
T84MXA		0.3320	0.0805	1.39	0.3300	0.0839	1.53
TGAA7A		0.2250	-0.0265	-0.46	0.2250	-0.0211	-0.39
TJHJ2		0.2500	-0.0015	-0.03	0.2300	-0.0161	-0.29
TNBPUW		0.2400	-0.0115	-0.20	0.2350	-0.0111	-0.20
TNTTAA		0.1700	-0.0815	-1.41	0.1650	-0.0811	-1.48
TYC8DC		0.2300	-0.0215	-0.37	0.2200	-0.0261	-0.48
U2F6D8		0.1900	-0.0615	-1.06	0.1900	-0.0561	-1.02
V429NP		0.1700	-0.0815	-1.41	0.1650	-0.0811	-1.48
V772F3		0.2500	-0.0015	-0.03	0.2300	-0.0161	-0.29
VBYWLG		0.2750	0.0235	0.41	0.2700	0.0239	0.43
VMB9U6		0.2150	-0.0365	-0.63	0.2300	-0.0161	-0.29
W936KU		0.2600	0.0085	0.15	0.2500	0.0039	0.07
WM9Z4W		0.2300	-0.0215	-0.37	0.2300	-0.0161	-0.29
X2MGRD		0.3300	0.0785	1.36	0.3300	0.0839	1.53
X3H673		0.2800	0.0285	0.49	0.2600	0.0139	0.25
X7C3E7		0.3480	0.0965	1.67	0.3250	0.0789	1.44
XDXVQ7	X	0.3900	0.1385	2.40	0.4100	0.1639	2.99
XTTBYC		0.2600	0.0085	0.15	0.2700	0.0239	0.43
XYHTB3		0.1950	-0.0565	-0.98	0.1900	-0.0561	-1.02
Y43DP3		0.2400	-0.0115	-0.20	0.2300	-0.0161	-0.29
Y79XEN		0.2200	-0.0315	-0.55	0.2150	-0.0311	-0.57
YDDPQ8		0.2750	0.0235	0.41	0.2700	0.0239	0.43
YEMJNR		0.2750	0.0235	0.41	0.2600	0.0139	0.25
YH3E4P		0.2500	-0.0015	-0.03	0.2400	-0.0061	-0.11
YNDFAT	X	0.4600	0.2085	3.61	0.4400	0.1939	3.53
YRRXQB		0.2150	-0.0365	-0.63	0.2100	-0.0361	-0.66
ZGMEKZ		0.2650	0.0135	0.23	0.2400	-0.0061	-0.11



**Analysis 905
Volatile Acidity**

Grand Means		Summary Statistics	
	0.25149 g/L as acetic acid		0.24614 g/L as acetic acid
Std Dev Btwn Labs			
	0.05775 g/L as acetic acid		0.05485 g/L as acetic acid
Statistics based on 95 of 102 reporting participants			

Wines tested: SA21: Rose; SA22: Rose

Comments on Assigned Data Flags for Test #905

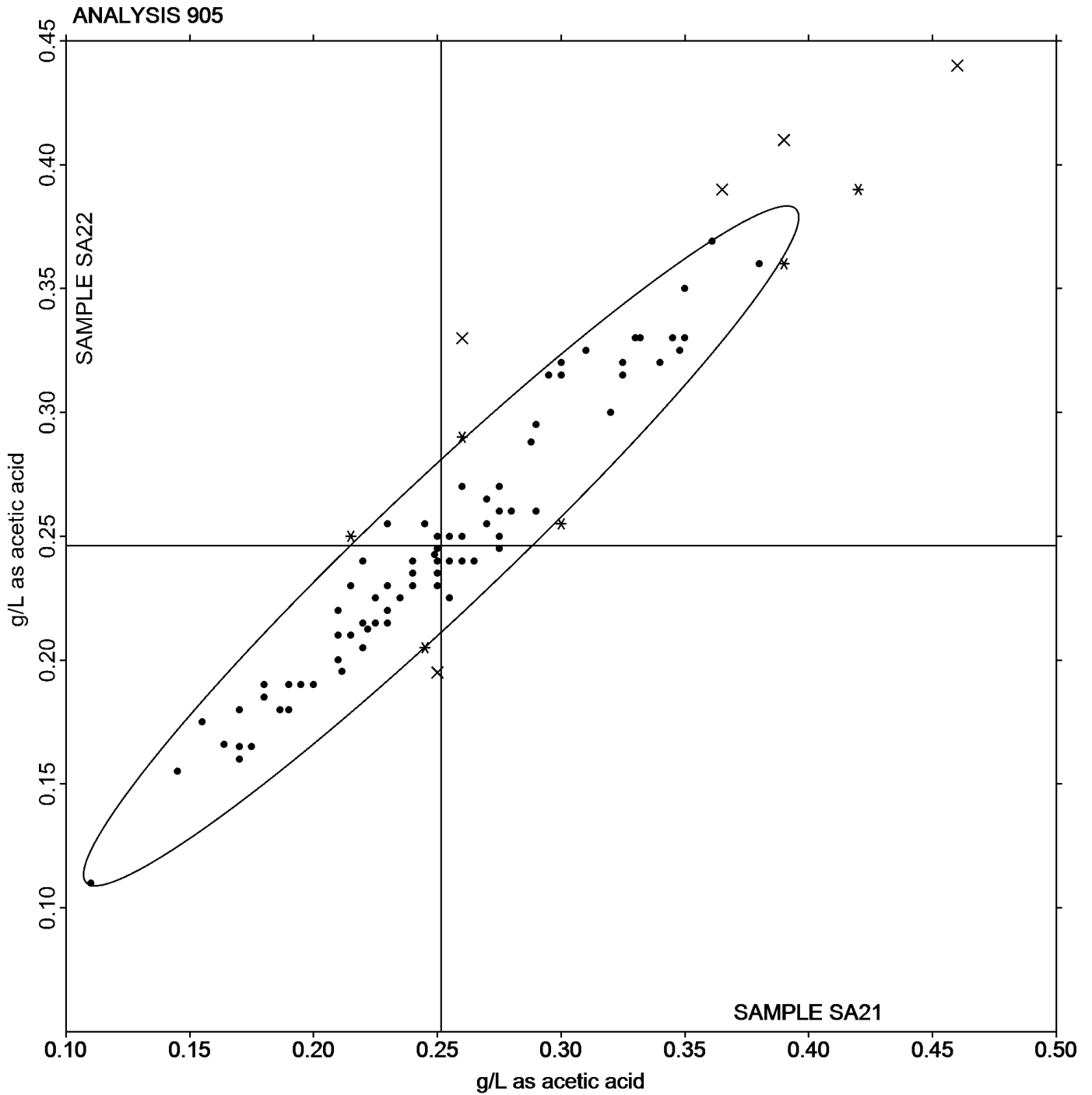
- YNDFAT (X) - Data for both samples are high. Possible Systematic Error.
- KC42AE (X) - Data for both samples are high. Possible Systematic Error.
- FE92GQ (X) - Inconsistent in testing between samples.
- 7QC8F7 (X) - Inconsistent in testing between samples. Inconsistent within the determinations of sample SA22.
- 72VPRQ (X) - Extreme data.
- XDXVQ7 (X) - Inconsistent in testing between samples, data for Sample SA22 are high.
- 7R7UUV (X) - Inconsistent in testing between samples.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA21 <i>Rose</i>			Sample SA22 <i>Rose</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Please specify method	0.350	0.000	0.0985	0.330	0.000	0.0839	1/1
Cash Still method	0.326	0.046	0.0746	0.318	0.042	0.0721	15/20
Enzymatic method	0.234	0.045	-0.0173	0.227	0.042	-0.0187	59/61
HPLC	0.215	0.000	-0.0365	0.210	0.000	-0.0361	1/1
GC	0.239	0.069	-0.0125	0.239	0.069	-0.0071	2/2
Colorimetric Analysis	0.228	0.018	-0.0240	0.230	0.000	-0.0161	2/2
Seg. Flow / Colorimetric Analyzer	0.296	0.034	0.0445	0.300	0.040	0.0539	5/5
FTIR	0.221	0.049	-0.0308	0.221	0.042	-0.0251	10/10



Analysis 905
Volatile Acidity





Analysis 906
Specific Gravity

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
27PNMY		1.007	0.000	0.19	1.007	0.000	0.19
2TF9E9		1.007	0.001	0.76	1.007	0.001	0.76
2UBWTX		1.006	0.000	-0.49	1.007	0.000	0.11
2WEM2Y		1.007	0.000	0.62	1.007	0.001	0.70
34EBAP		1.007	0.001	1.18	1.008	0.001	1.16
38Z4D7		1.007	0.000	0.20	1.007	0.000	0.24
3FRB7J		1.007	0.000	0.13	1.007	0.000	0.11
3GKG9V		1.007	0.000	0.20	1.007	0.000	0.17
43FHX4		1.007	0.000	0.27	1.007	0.000	0.24
4FJQUZ		1.007	0.000	0.18	1.007	0.000	0.20
72VPRQ	X	8.393	7.387	10,291.60	8.347	7.341	9,625.60
76T4EF	*	1.004	-0.002	-3.42	1.004	-0.002	-3.17
7DQU4W	X	1.005	-0.002	-2.16	1.006	-0.001	-1.20
7QC8F7	*	1.005	-0.001	-1.97	1.005	-0.002	-2.56
7R7UUV		1.005	-0.002	-2.59	1.005	-0.002	-2.25
7ZLCTW		1.007	0.000	0.27	1.007	0.000	0.24
9RZ8QM		1.007	0.000	0.69	1.007	0.000	0.63
AWRNNY		1.008	0.001	1.46	1.008	0.001	1.16
AZQZJY		1.006	0.000	-0.29	1.007	0.000	-0.29
B7AURF		1.007	0.000	0.55	1.007	0.000	0.50
BCEL3Y		1.007	0.000	0.41	1.007	0.000	0.37
BH6Y4M		1.007	0.000	0.26	1.007	0.000	0.25
BH7LP8		1.007	0.000	0.62	1.007	0.000	0.63
BRZUAX		1.007	0.000	0.22	1.007	0.000	0.21
BT6LWJ		1.007	0.000	0.41	1.007	0.000	0.40
BYRE8J		1.007	0.001	1.04	1.008	0.001	1.42
CBJAYJ		1.005	-0.001	-1.96	1.005	-0.002	-1.99
CEL42U		1.007	0.000	0.25	1.007	0.000	0.23
D8HLVG		1.006	0.000	-0.21	1.007	0.000	0.24
DEDQNH		1.007	0.000	0.31	1.007	0.000	0.30
DPV6RK	X	1.009	0.002	3.27	1.010	0.003	3.91
DUVE3M		1.005	-0.002	-2.44	1.005	-0.002	-2.12
DY8HTN		1.007	0.000	0.27	1.007	0.000	0.26
E679T7		1.007	0.000	0.34	1.007	0.000	0.24
E7H6VP		1.007	0.000	0.34	1.007	0.000	0.37



Analysis 906
Specific Gravity

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
EFLBUX	*	1.006	0.000	-0.51	1.007	0.000	0.29
EN4MAJ		1.007	0.000	0.24	1.007	0.000	0.22
ERKTP7		1.007	0.000	0.20	1.007	0.000	0.17
FE92GQ		1.007	0.000	0.16	1.007	0.000	0.12
GGADUH	X	1.002	-0.004	-6.21	1.002	-0.005	-6.97
GJ48JZ		1.006	0.000	-0.56	1.006	0.000	-0.48
GKD9DK		1.007	0.000	0.29	1.007	0.000	0.27
GRA4D6		1.006	0.000	-0.14	1.007	0.000	-0.35
GZ8NLR		1.007	0.000	0.48	1.007	0.000	0.44
HLFLDJ		1.007	0.000	0.06	1.007	0.000	-0.28
JBVCM6		1.007	0.000	0.06	1.007	0.000	0.11
JLYKBG		1.007	0.000	0.25	1.007	0.000	0.22
KC42AE		1.007	0.000	0.23	1.007	0.000	0.21
KRFK2E	X	0.999	-0.007	-9.98	0.999	-0.008	-10.85
KWAL28		1.007	0.000	0.06	1.007	0.000	0.11
KYJM7E		1.007	0.000	0.36	1.007	0.000	0.32
LXKLWG		1.007	0.000	0.34	1.007	0.000	0.32
MBLUYG		1.007	0.000	0.06	1.007	0.000	-0.42
MBPGEA		1.007	0.000	0.23	1.007	0.000	0.20
MKWWKG		1.007	0.000	0.13	1.007	0.000	-0.09
N3TWUT		1.007	0.000	0.24	1.007	0.000	0.24
NHLH89		1.007	0.000	0.18	1.007	0.000	0.17
NUYH42		1.005	-0.001	-1.89	1.005	-0.001	-1.86
NVMATC		1.007	0.001	0.76	1.007	0.001	0.76
NVPZ2F		1.006	0.000	-0.65	1.006	-0.001	-1.10
P69TT4		1.005	-0.002	-2.23	1.005	-0.002	-2.11
P8GQHD		1.007	0.000	0.06	1.007	0.000	-0.02
PGMQVL		1.007	0.000	0.21	1.007	0.000	0.21
PY7NWD	X	1.007	0.000	0.25	1.005	-0.001	-1.88
QM6FVL		1.007	0.000	0.12	1.007	0.000	0.10
QYL8GB		1.007	0.000	0.06	1.006	0.000	-0.61
RJZCCX		1.007	0.000	0.34	1.007	0.000	0.24
T84MXA		1.007	0.001	1.18	1.008	0.001	1.16
TGAA7A		1.007	0.000	0.23	1.007	0.000	0.22
TNBPUW		1.005	-0.002	-2.30	1.005	-0.002	-2.25



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

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
TYC8DC		1.005	-0.001	-1.47	1.006	-0.001	-1.46
TYFK6E		1.007	0.000	0.26	1.007	0.000	0.24
U2F6D8		1.007	0.000	0.27	1.007	0.000	0.25
UZ2TJ9	X	1.010	0.003	4.25	1.010	0.003	4.04
V429NP		1.007	0.000	0.37	1.007	0.000	0.34
VBYWLG		1.007	0.000	0.36	1.007	0.000	0.25
VMB9U6		1.007	0.000	0.62	1.007	0.000	0.57
W936KU	X	1.004	-0.002	-3.42	1.005	-0.002	-2.38
WM9Z4W		1.006	0.000	-0.42	1.007	0.000	-0.42
X2MGRD		1.007	0.000	0.20	1.007	0.000	0.24
X3H673		1.007	0.000	0.34	1.007	0.000	0.37
X7C3E7	*	1.009	0.003	3.53	1.009	0.003	3.36
XDXVQ7		1.007	0.001	1.11	1.008	0.001	1.16
XTTBYC		1.007	0.000	0.25	1.007	0.000	-0.38
XYHTB3		1.006	-0.001	-0.91	1.006	-0.001	-1.34
Y43DP3		1.006	0.000	-0.29	1.007	0.000	0.44
Y79XEN		1.006	0.000	-0.35	1.006	0.000	-0.48
YDDPQ8		1.005	-0.001	-2.03	1.005	-0.002	-2.38
YH3E4P		1.006	-0.001	-0.91	1.006	-0.001	-1.34
YNDFAT	X	1.005	-0.002	-2.40	1.008	0.001	1.41
YRRXQB		1.007	0.000	0.34	1.007	0.000	0.24
ZGMEKZ		1.007	0.001	0.70	1.007	0.000	0.48

Grand Means		Summary Statistics	
	1.0065 sp gr 20/20 C		1.0068 sp gr 20/20 C
Stnd Dev Btwn Labs			
	0.0007 sp gr 20/20 C		0.0008 sp gr 20/20 C
Statistics based on 83 of 92 reporting participants			

Wines tested: SA21: Rose; SA22: Rose

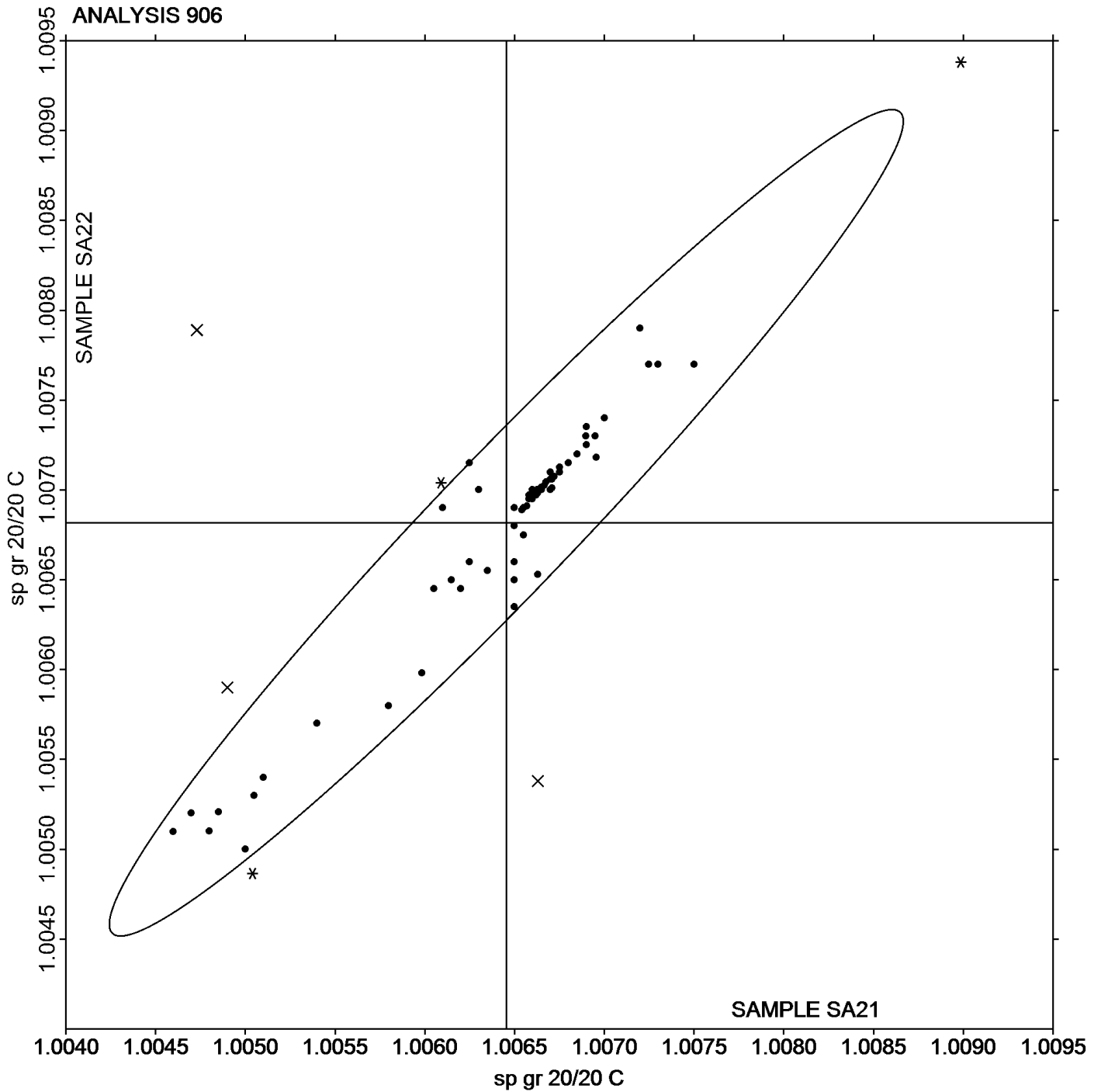


Comments on Assigned Data Flags for Test #906

- YNDFAT (X) - Inconsistent in testing between samples.
- UZ2TJ9 (X) - Data for both samples are high. Possible Systematic Error.
- 7DQU4W (X) - Inconsistent in testing between samples.
- W936KU (X) - Data for sample SA21 are low.
- GGADUH (X) - Data for both samples are low. Possible Systematic Error.
- 72VPRQ (X) - Extreme data.
- DPV6RK (X) - Data for both samples are high. Possible Systematic Error.
- PY7NWD (X) - Inconsistent in testing between samples.
- KRFK2E (X) - Data for both samples are low.



Analysis 906
Specific Gravity





ASEV-CTS Wine Industry Interlaboratory Testing Program
Analysis 907
pH

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2EJUGZ		3.205	-0.038	-1.16	3.160	-0.039	-1.16
2TF9E9		3.220	-0.023	-0.69	3.170	-0.029	-0.86
2UBWTX		3.200	-0.043	-1.31	3.160	-0.039	-1.16
2WEM2Y		3.265	0.022	0.69	3.215	0.016	0.47
34EBAP		3.280	0.037	1.16	3.240	0.041	1.21
38Z4D7		3.215	-0.028	-0.85	3.165	-0.034	-1.01
3FRB7J		3.264	0.021	0.66	3.216	0.017	0.50
3GKG9V		3.235	-0.008	-0.23	3.180	-0.019	-0.57
43FHX4		3.195	-0.048	-1.47	3.155	-0.044	-1.30
4FJQUZ		3.205	-0.038	-1.16	3.175	-0.024	-0.71
64NYNL		3.225	-0.018	-0.54	3.175	-0.024	-0.71
72VPRQ		3.270	0.027	0.85	3.225	0.026	0.77
76T4EF		3.250	0.007	0.23	3.210	0.011	0.32
7DQU4W		3.220	-0.023	-0.69	3.180	-0.019	-0.57
7QC8F7	X	3.230	-0.013	-0.39	3.260	0.061	1.80
7R7UUV	X	3.410	0.167	5.17	3.360	0.161	4.76
7ZLCTW		3.250	0.007	0.23	3.210	0.011	0.32
996PKR		3.280	0.037	1.16	3.240	0.041	1.21
9RZ8QM		3.225	-0.018	-0.54	3.170	-0.029	-0.86
AAW8YY		3.220	-0.023	-0.69	3.190	-0.009	-0.27
AWRNNY		3.270	0.027	0.85	3.230	0.031	0.91
AZQZJY		3.260	0.017	0.54	3.210	0.011	0.32
B7AURF		3.260	0.017	0.54	3.190	-0.009	-0.27
BCEL3Y		3.270	0.027	0.85	3.220	0.021	0.62
BH6Y4M		3.260	0.017	0.54	3.215	0.016	0.47
BH7LP8		3.260	0.017	0.54	3.240	0.041	1.21
BRZUAX		3.260	0.017	0.54	3.215	0.016	0.47
BT6LWJ		3.230	-0.013	-0.39	3.190	-0.009	-0.27
BYRE8J		3.265	0.022	0.69	3.215	0.016	0.47
CBJAYJ	*	3.155	-0.088	-2.70	3.110	-0.089	-2.63
CEL42U		3.210	-0.033	-1.00	3.165	-0.034	-1.01
D8HLVG		3.240	-0.003	-0.08	3.195	-0.004	-0.12
DEDQNH		3.195	-0.048	-1.47	3.175	-0.024	-0.71
DPV6RK		3.250	0.007	0.23	3.220	0.021	0.62
DUVE3M		3.280	0.037	1.16	3.245	0.046	1.36



ASEV-CTS Wine Industry Interlaboratory Testing Program
Analysis 907
pH

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
DY8HTN		3.260	0.017	0.54	3.210	0.011	0.32
E679T7		3.310	0.067	2.08	3.270	0.071	2.10
E7H6VP		3.275	0.032	1.00	3.240	0.041	1.21
EFLBUX	*	3.165	-0.078	-2.39	3.140	-0.059	-1.75
EN4MAJ		3.270	0.027	0.85	3.230	0.031	0.91
ERKTP7		3.265	0.022	0.69	3.220	0.021	0.62
FE92GQ		3.240	-0.003	-0.08	3.190	-0.009	-0.27
G3DABD		3.200	-0.043	-1.31	3.175	-0.024	-0.71
GGADUH		3.240	-0.003	-0.08	3.210	0.011	0.32
GJ48JZ		3.230	-0.013	-0.39	3.180	-0.019	-0.57
GKD9DK		3.245	0.002	0.08	3.190	-0.009	-0.27
GRA4D6		3.270	0.027	0.85	3.210	0.011	0.32
GZ8NLR		3.242	-0.001	-0.03	3.193	-0.006	-0.18
HLFLDJ		3.235	-0.008	-0.23	3.190	-0.009	-0.27
HMACHD	X	3.355	0.112	3.47	3.340	0.141	4.17
JBVCM6		3.190	-0.053	-1.62	3.140	-0.059	-1.75
JLYKBG	*	3.250	0.007	0.23	3.240	0.041	1.21
JPGRQ4		3.230	-0.013	-0.39	3.185	-0.014	-0.42
KC42AE		3.210	-0.033	-1.00	3.160	-0.039	-1.16
KRFK2E	X	3.040	-0.203	-6.25	3.005	-0.194	-5.74
KWAL28		3.250	0.007	0.23	3.215	0.016	0.47
KYJM7E	*	3.340	0.097	3.01	3.300	0.101	2.98
LDUMFA		3.250	0.007	0.23	3.205	0.006	0.17
LXKLWG		3.230	-0.013	-0.39	3.210	0.011	0.32
MBLUYG		3.320	0.077	2.39	3.280	0.081	2.39
MBPGEA		3.220	-0.023	-0.69	3.180	-0.019	-0.57
MKWWKG		3.265	0.022	0.69	3.245	0.046	1.36
MRPDQD	*	3.320	0.077	2.39	3.285	0.086	2.54
N3TWUT		3.230	-0.013	-0.39	3.200	0.001	0.03
NHLH89	*	3.258	0.015	0.46	3.243	0.043	1.28
NUYH42		3.240	-0.003	-0.08	3.190	-0.009	-0.27
NVMATC		3.260	0.017	0.54	3.200	0.001	0.03
NVPZ2F		3.265	0.022	0.69	3.195	-0.004	-0.12
P69TT4		3.250	0.007	0.23	3.201	0.002	0.06
P8GQHD		3.225	-0.018	-0.54	3.160	-0.039	-1.16



ASEV-CTS Wine Industry Interlaboratory Testing Program
Analysis 907
pH

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
PGMQVL		3.240	-0.003	-0.08	3.190	-0.009	-0.27
PY7NWD		3.230	-0.013	-0.39	3.180	-0.019	-0.57
QM6FVL		3.300	0.057	1.77	3.270	0.071	2.10
QYL8GB		3.280	0.037	1.16	3.225	0.026	0.77
R2MM8D		3.245	0.002	0.08	3.200	0.001	0.03
RJZCCX		3.275	0.032	1.00	3.220	0.021	0.62
RZ7JQZ		3.240	-0.003	-0.08	3.190	-0.009	-0.27
T84MXA		3.170	-0.073	-2.24	3.125	-0.074	-2.19
TGAA7A		3.250	0.007	0.23	3.210	0.011	0.32
TJHJJ2		3.248	0.005	0.15	3.197	-0.002	-0.06
TNBPUW		3.250	0.007	0.23	3.200	0.001	0.03
TNTTAA	X	3.160	-0.083	-2.55	3.170	-0.029	-0.86
TYC8DC		3.215	-0.028	-0.85	3.165	-0.034	-1.01
U2F6D8		3.240	-0.003	-0.08	3.200	0.001	0.03
UZ2TJ9		3.255	0.012	0.38	3.195	-0.004	-0.12
V429NP		3.245	0.002	0.08	3.200	0.001	0.03
V772F3		3.220	-0.023	-0.69	3.195	-0.004	-0.12
VBYWLG		3.240	-0.003	-0.08	3.190	-0.009	-0.27
VMB9U6		3.195	-0.048	-1.47	3.135	-0.064	-1.90
W936KU	X	3.350	0.107	3.32	3.305	0.106	3.13
WM9Z4W		3.220	-0.023	-0.69	3.175	-0.024	-0.71
X3H673		3.290	0.047	1.46	3.230	0.031	0.91
X7C3E7	X	3.300	0.057	1.77	3.205	0.006	0.17
XDXVQ7		3.250	0.007	0.23	3.200	0.001	0.03
XTTBYC		3.240	-0.003	-0.08	3.200	0.001	0.03
XYHTB3		3.200	-0.043	-1.31	3.160	-0.039	-1.16
Y43DP3		3.200	-0.043	-1.31	3.155	-0.044	-1.30
Y79XEN		3.255	0.012	0.38	3.210	0.011	0.32
YDDPQ8		3.250	0.007	0.23	3.215	0.016	0.47
YEMJNR		3.220	-0.023	-0.69	3.190	-0.009	-0.27
YH3E4P		3.255	0.012	0.38	3.215	0.016	0.47
YNDFAT		3.260	0.017	0.54	3.220	0.021	0.62
YRRXQB		3.190	-0.053	-1.62	3.145	-0.054	-1.60
ZGMEKZ		3.220	-0.023	-0.69	3.160	-0.039	-1.16



Grand Means		Summary Statistics	
	3.2425 pH		3.1991 pH
Std Dev Btwn Labs			0.0338 pH
	0.0324 pH		

Statistics based on 97 of 104 reporting participants

Wines tested: SA21: Rose; SA22: Rose

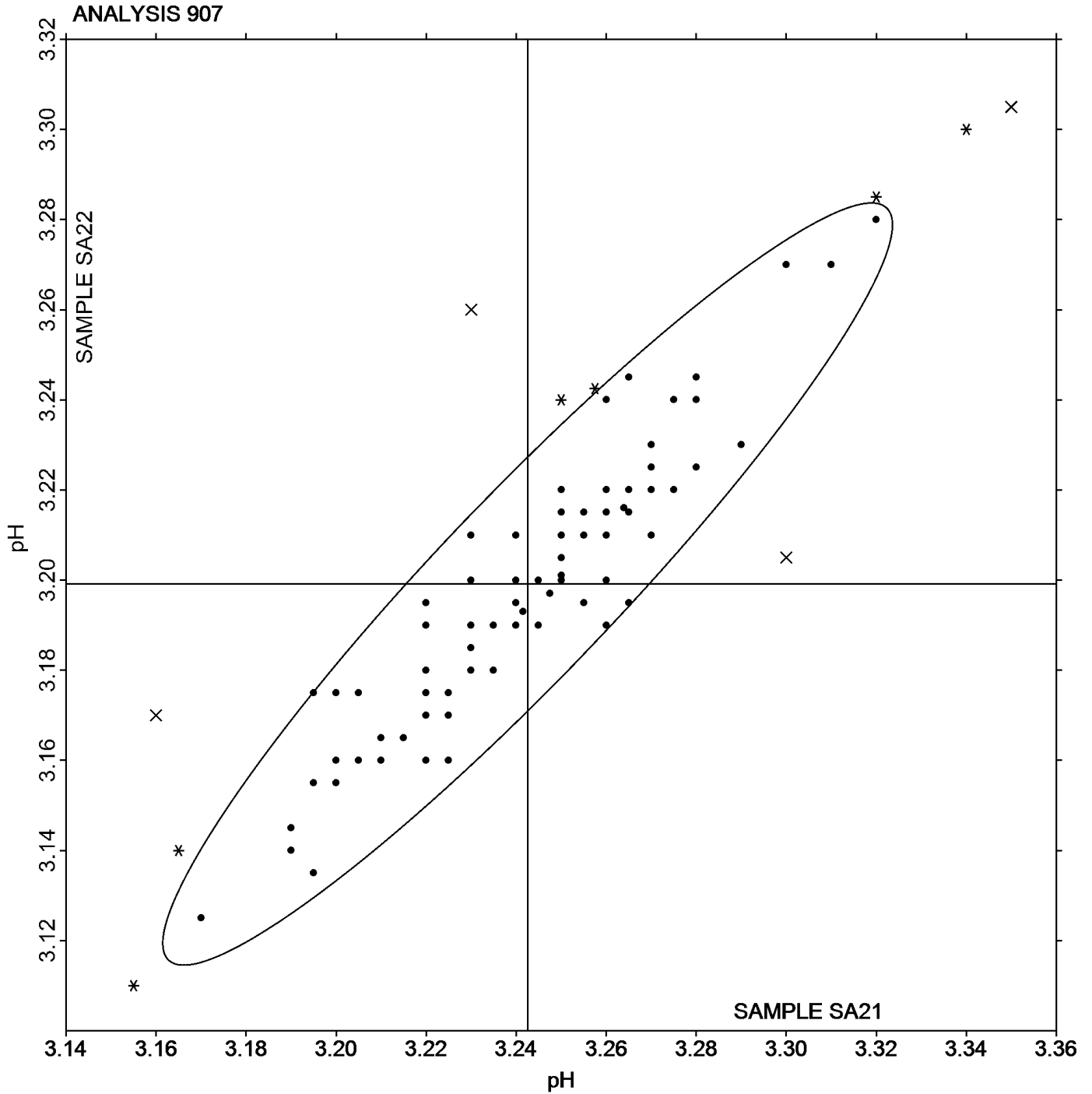
Comments on Assigned Data Flags for Test #907

- TNTTAA (X) - Inconsistent in testing between samples.
- 7QC8F7 (X) - Inconsistent in testing between samples.
- W936KU (X) - Data for both samples are high. Possible Systematic Error.
- HMACHD (X) - Data for both samples are high. Possible Systematic Error.
- X7C3E7 (X) - Inconsistent in testing between samples.
- 7R7UUV (X) - Data for both samples are high. Possible Systematic Error.
- KRFK2E (X) - Data for both samples are low. Possible Systematic Error. Inconsistent within the determinations of both samples.



Analysis 907

pH





ASEV-CTS Wine Industry Interlaboratory Testing Program
Analysis 908
Residual Sugar

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
27PNMY		30.40	0.14	0.06	31.05	-0.04	-0.02
7DQU4W		32.50	2.24	1.01	33.00	1.91	0.89
7ZLCTW		30.80	0.54	0.24	31.00	-0.09	-0.04
996PKR	X	50.00	19.74	8.94	50.00	18.91	8.78
AAW8YY		25.79	-4.47	-2.03	26.12	-4.97	-2.31
AWRNNY		30.40	0.14	0.06	32.28	1.19	0.55
CEL42U		30.90	0.64	0.29	31.70	0.61	0.29
DY8HTN		32.20	1.94	0.88	33.20	2.11	0.98
EFLBUX		30.65	0.39	0.17	31.50	0.41	0.19
HMACHD		24.70	-5.56	-2.52	25.60	-5.49	-2.55
JLYKBG	*	32.18	1.92	0.87	31.10	0.01	0.01
MBLUYG		30.00	-0.26	-0.12	31.60	0.51	0.24
MKWWKG		31.44	1.17	0.53	31.65	0.56	0.26
P8GQHD		28.50	-1.76	-0.80	30.00	-1.09	-0.50
PY7NWD		30.80	0.54	0.24	31.60	0.51	0.24
T84MXA		31.70	1.44	0.65	33.00	1.91	0.89
TNBPW		29.90	-0.36	-0.17	30.75	-0.34	-0.16
X2MGRD		27.48	-2.79	-1.26	29.13	-1.96	-0.91
XTTBYC		32.30	2.04	0.92	32.90	1.81	0.84
YRRXQB		32.40	2.14	0.97	33.45	2.36	1.10

Grand Means		Summary Statistics	
	30.265 g/L		31.085 g/L
Std Dev Btwn Labs			
	2.208 g/L		2.153 g/L
Statistics based on 19 of 20 reporting participants			

Wines tested: SA21: Rose; SA22: Rose

Comments on Assigned Data Flags for Test #908

996PKR (X) - Data for both samples are high.



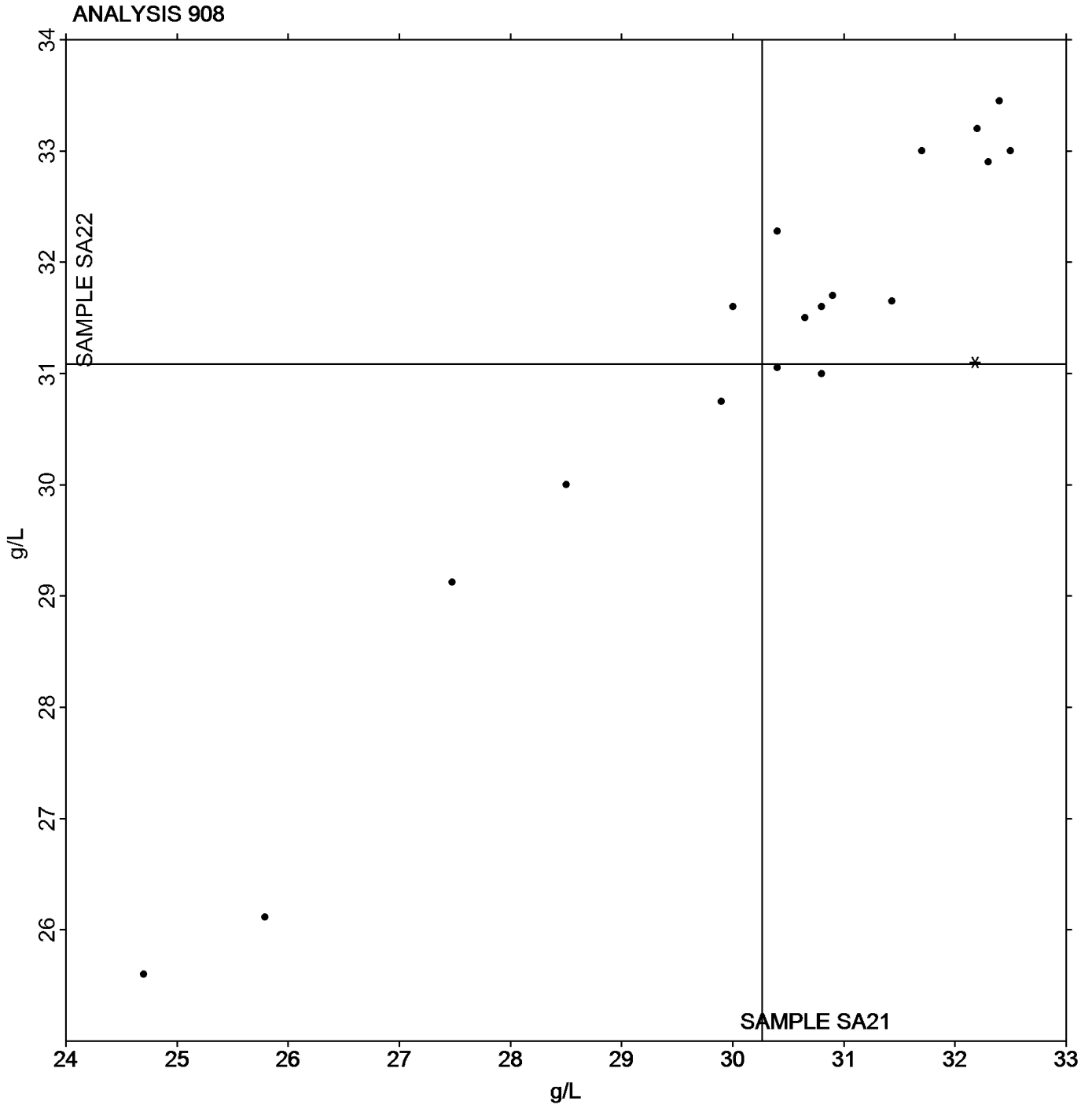
Analysis 908
Residual Sugar

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA21 <i>Rose</i>			Sample SA22 <i>Rose</i>			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Please specify method used	24.700	0.000	-5.56	25.600	0.000	-5.49	1/1
Cu Reduction Method	30.257	2.091	-0.01	31.089	2.018	0.00	12/13
Segmented Flow	31.300	1.273	1.04	32.125	1.520	1.04	2/2
FTIR	31.163	0.765	0.90	31.925	0.655	0.84	4/4



Analysis 908
Residual Sugar



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 909
L-Malic Acid

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2EJUGZ		2.612	0.136	0.88	2.578	0.124	0.78
2TF9E9		2.693	0.217	1.41	2.620	0.166	1.04
2WEM2Y		2.568	0.092	0.60	2.577	0.123	0.77
34EBAP		2.470	-0.005	-0.03	2.510	0.056	0.36
38Z4D7		2.320	-0.155	-1.00	2.235	-0.219	-1.38
3FRB7J		2.332	-0.143	-0.92	2.328	-0.126	-0.79
3GKG9V		2.638	0.163	1.05	2.603	0.149	0.94
43FHX4		2.315	-0.160	-1.03	2.410	-0.044	-0.27
64NYNL		2.595	0.120	0.78	2.550	0.096	0.61
72VPRQ	*	2.465	-0.010	-0.06	2.580	0.126	0.80
76T4EF		2.572	0.096	0.62	2.534	0.080	0.50
7DQU4W		2.330	-0.145	-0.94	2.345	-0.109	-0.68
7QC8F7		2.388	-0.088	-0.57	2.442	-0.012	-0.07
7ZLCTW		2.315	-0.160	-1.03	2.285	-0.169	-1.06
9RZ8QM		2.280	-0.195	-1.26	2.280	-0.174	-1.09
AZQZJY		2.538	0.063	0.41	2.524	0.070	0.44
B7AURF	X	1.190	-1.285	-8.31	1.165	-1.289	-8.12
BCEL3Y		2.610	0.135	0.87	2.520	0.066	0.42
BH6Y4M		2.758	0.283	1.83	2.720	0.266	1.68
BH7LP8		2.537	0.062	0.40	2.500	0.046	0.29
BRZUAX		2.578	0.102	0.66	2.548	0.094	0.59
BT6LWJ		2.410	-0.066	-0.42	2.339	-0.115	-0.72
BYRE8J		2.310	-0.165	-1.07	2.210	-0.244	-1.53
CBJAYJ		2.565	0.090	0.58	2.515	0.061	0.39
CEL42U		2.578	0.103	0.67	2.542	0.088	0.55
D8HLVG		2.420	-0.055	-0.36	2.495	0.041	0.26
DEDQNH		2.445	-0.030	-0.19	2.380	-0.074	-0.46
DUVE3M		2.445	-0.030	-0.19	2.385	-0.069	-0.43
E679T7		2.755	0.280	1.81	2.750	0.296	1.87
E7H6VP		2.285	-0.190	-1.23	2.295	-0.159	-1.00
EFLBUX		2.600	0.125	0.81	2.600	0.146	0.92
EN4MAJ		2.590	0.115	0.74	2.560	0.106	0.67
ERKTP7		2.595	0.120	0.78	2.545	0.091	0.58
FE92GQ		2.450	-0.025	-0.16	2.323	-0.131	-0.82
G3DABD		2.280	-0.195	-1.26	2.200	-0.254	-1.60



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

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
GGADUH		2.291	-0.184	-1.19	2.258	-0.196	-1.23
GJ48JZ		2.625	0.150	0.97	2.620	0.166	1.05
GRA4D6		2.435	-0.040	-0.26	2.410	-0.044	-0.27
GZ8NLR		2.652	0.177	1.14	2.600	0.146	0.92
HLFLDJ		2.540	0.065	0.42	2.515	0.061	0.39
JBVCM6		2.593	0.117	0.76	2.523	0.069	0.43
JPGRQ4		2.529	0.053	0.35	2.502	0.048	0.30
KC42AE	*	2.460	-0.015	-0.10	2.600	0.146	0.92
KWAL28		2.505	0.030	0.19	2.475	0.021	0.13
KYJM7E		2.320	-0.155	-1.00	2.260	-0.194	-1.22
LDUMFA		2.250	-0.225	-1.45	2.205	-0.249	-1.57
LXKLWG		2.400	-0.075	-0.48	2.350	-0.104	-0.65
MBLUYG		2.360	-0.115	-0.74	2.290	-0.164	-1.03
MBPGEA		2.408	-0.068	-0.44	2.413	-0.041	-0.26
MKWWKG		2.310	-0.165	-1.07	2.235	-0.219	-1.38
N3TWUT	*	2.125	-0.350	-2.26	2.225	-0.229	-1.44
NHLH89		2.550	0.075	0.48	2.500	0.046	0.29
NUYH42		2.370	-0.105	-0.68	2.335	-0.119	-0.75
NVMATC		2.310	-0.165	-1.07	2.345	-0.109	-0.68
P69TT4		2.623	0.148	0.95	2.649	0.195	1.23
P8GQHD		2.600	0.125	0.81	2.530	0.076	0.48
PGMQVL		2.605	0.130	0.84	2.555	0.101	0.64
PY7NWD		2.350	-0.125	-0.81	2.350	-0.104	-0.65
QM6FVL		2.205	-0.270	-1.75	2.165	-0.289	-1.82
QYL8GB		2.270	-0.205	-1.33	2.330	-0.124	-0.78
R2MM8D		2.615	0.140	0.91	2.567	0.113	0.71
RJZCCX		2.660	0.185	1.20	2.700	0.246	1.55
RZ7JQZ		2.320	-0.155	-1.00	2.285	-0.169	-1.06
T84MXA		2.495	0.020	0.13	2.445	-0.009	-0.05
TGAA7A		2.586	0.110	0.71	2.618	0.164	1.03
TNBPUW		2.583	0.107	0.69	2.535	0.081	0.51
TNTTAA		2.260	-0.215	-1.39	2.230	-0.224	-1.41
TYC8DC		2.270	-0.205	-1.33	2.165	-0.289	-1.82
U2F6D8		2.450	-0.025	-0.16	2.550	0.096	0.61
UZ2TJ9		2.320	-0.155	-1.00	2.330	-0.124	-0.78



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

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
V429NP		2.270	-0.205	-1.33	2.320	-0.134	-0.84
V772F3		2.680	0.205	1.33	2.615	0.161	1.02
VBYWLG		2.550	0.075	0.48	2.450	-0.004	-0.02
VMB9U6		2.535	0.060	0.39	2.540	0.086	0.54
W936KU		2.695	0.220	1.42	2.675	0.221	1.39
WM9Z4W		2.545	0.070	0.45	2.510	0.056	0.36
X3H673		2.655	0.180	1.16	2.670	0.216	1.36
XDXVQ7		2.510	0.035	0.23	2.495	0.041	0.26
XTTBYC	*	2.110	-0.365	-2.36	2.040	-0.414	-2.60
XYHTB3		2.650	0.175	1.13	2.665	0.211	1.33
Y43DP3		2.490	0.015	0.10	2.415	-0.039	-0.24
Y79XEN		2.635	0.160	1.03	2.635	0.181	1.14
YDDPQ8		2.515	0.040	0.26	2.476	0.022	0.14
YEMJNR	X	3.085	0.610	3.94	2.970	0.516	3.25
YH3E4P		2.620	0.145	0.94	2.490	0.036	0.23
YNDFAT		2.693	0.218	1.41	2.683	0.229	1.44
YRRXQB		2.660	0.185	1.20	2.710	0.256	1.61
ZGMEKZ		2.157	-0.319	-2.06	2.135	-0.319	-2.01

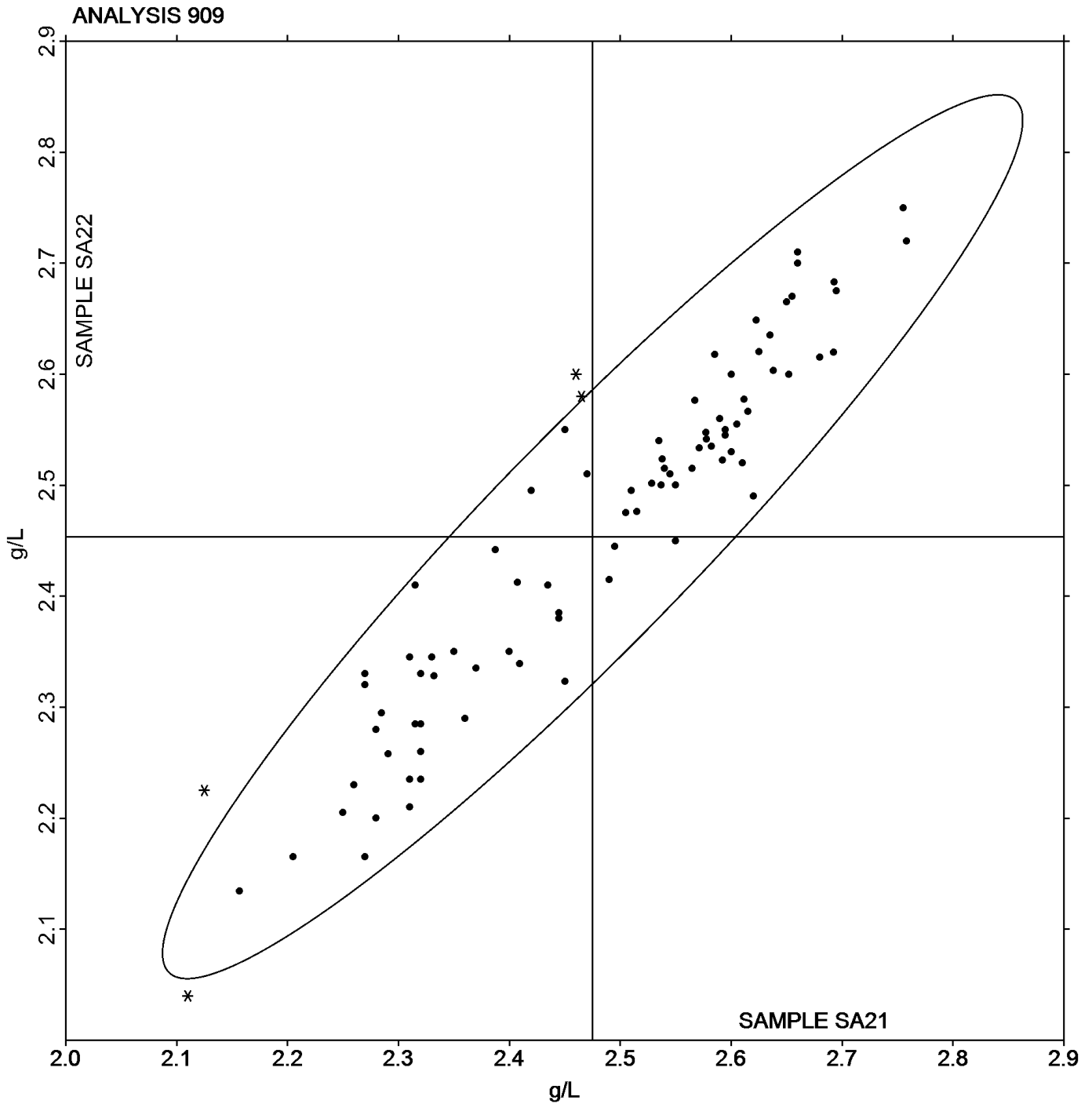
Grand Means		Summary Statistics	
	2.4750 g/L		2.4536 g/L
Std Dev Btwn Labs			0.1588 g/L
	0.1547 g/L		
Statistics based on 86 of 88 reporting participants			

Wines tested: SA21: Rose; SA22: Rose

Comments on Assigned Data Flags for Test #909

YEMJNR (X) - Data for both samples are high. Possible Systematic Error. Inconsistent within the determinations of sample SA21.

B7AURF (X) - Data for both samples are low.





ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #061
Spring 2019

Analysis 910 Glucose + Fructose

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
27PNMY		29.80	0.66	0.35	30.40	0.52	0.26
2EJUGZ		31.10	1.96	1.03	31.75	1.87	0.95
2TF9E9		30.20	1.06	0.56	31.15	1.27	0.64
2UBWTX		30.20	1.06	0.56	30.50	0.62	0.31
2WEM2Y	X	31.45	2.31	1.21	30.05	0.17	0.08
34EBAP		28.90	-0.24	-0.12	29.80	-0.08	-0.04
38Z4D7		25.55	-3.59	-1.87	27.32	-2.56	-1.30
3FRB7J		29.78	0.64	0.33	30.05	0.17	0.08
3GKG9V		31.60	2.46	1.29	32.20	2.32	1.17
43FHX4		30.10	0.96	0.50	29.72	-0.16	-0.08
4FJQUZ		32.96	3.82	2.00	33.84	3.95	2.00
64NYNL		29.33	0.19	0.10	30.14	0.25	0.13
72VPRQ	X	9.10	-20.04	-10.47	9.17	-20.71	-10.48
76T4EF		30.65	1.51	0.79	31.70	1.82	0.92
7QC8F7		31.81	2.67	1.39	31.43	1.54	0.78
7ZLCTW	*	31.05	1.91	1.00	33.45	3.57	1.81
9RZ8QM	*	23.51	-5.63	-2.94	23.99	-5.90	-2.98
AWRNNY		31.07	1.93	1.01	31.67	1.79	0.90
AZQZJY		26.20	-2.94	-1.53	27.30	-2.58	-1.31
B7AURF		25.45	-3.69	-1.93	25.70	-4.18	-2.12
BCEL3Y		29.55	0.41	0.22	29.70	-0.18	-0.09
BH6Y4M		29.40	0.26	0.14	30.00	0.12	0.06
BH7LP8		29.70	0.56	0.29	31.10	1.22	0.62
BRZUAX		31.35	2.21	1.16	32.30	2.42	1.22
BT6LWJ		28.32	-0.82	-0.43	27.99	-1.89	-0.96
BYRE8J		32.12	2.98	1.56	32.52	2.64	1.33
CBJAYJ		29.90	0.76	0.40	30.95	1.07	0.54
CEL42U	*	31.31	2.17	1.13	30.28	0.40	0.20
D8HLVG		27.85	-1.29	-0.67	29.10	-0.78	-0.40
DEDQNH		30.05	0.91	0.47	32.02	2.13	1.08
DUVE3M	*	26.94	-2.20	-1.15	26.10	-3.79	-1.92
E679T7		32.24	3.10	1.62	32.61	2.73	1.38
E7H6VP		28.80	-0.34	-0.18	30.60	0.72	0.36
EN4MAJ		29.85	0.71	0.37	30.68	0.79	0.40
ERKTP7		29.50	0.36	0.19	31.00	1.12	0.57



ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #061
Spring 2019

Analysis 910 Glucose + Fructose

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
FE92GQ		28.10	-1.04	-0.54	30.05	0.17	0.08
G3DABD		27.40	-1.74	-0.91	27.30	-2.58	-1.31
GGADUH	X	34.51	5.37	2.81	32.15	2.27	1.15
GJ48JZ		28.10	-1.04	-0.54	28.90	-0.98	-0.50
GKD9DK	*	30.75	1.61	0.84	29.85	-0.03	-0.02
GZ8NLR		29.53	0.39	0.20	30.09	0.20	0.10
HLFLDJ		26.50	-2.64	-1.38	26.70	-3.18	-1.61
JBVCM6		28.77	-0.37	-0.19	29.07	-0.81	-0.41
JPGRQ4		31.05	1.91	1.00	31.75	1.87	0.95
KC42AE		29.29	0.15	0.08	29.88	0.00	0.00
KWAL28		29.75	0.61	0.32	30.75	0.87	0.44
KYJM7E		28.10	-1.04	-0.54	28.71	-1.17	-0.59
LDUMFA		25.95	-3.19	-1.66	25.90	-3.98	-2.02
LXKLWG		29.22	0.08	0.04	29.53	-0.36	-0.18
MBPGEA		30.15	1.01	0.53	30.65	0.77	0.39
MKWWKG		29.45	0.31	0.16	30.08	0.20	0.10
N3TWUT		25.50	-3.64	-1.90	26.95	-2.93	-1.48
NHLH89		26.00	-3.14	-1.64	27.00	-2.88	-1.46
NUYH42		29.75	0.61	0.32	30.08	0.20	0.10
NVMATC	*	29.88	0.74	0.39	32.63	2.74	1.39
NVPZ2F		31.45	2.31	1.21	32.30	2.42	1.22
P69TT4		31.80	2.66	1.39	32.75	2.87	1.45
P8GQHD		30.00	0.86	0.45	31.00	1.12	0.57
PGMQVL		29.70	0.56	0.29	30.75	0.87	0.44
PY7NWD		28.95	-0.19	-0.10	29.50	-0.38	-0.19
QM6FVL		30.00	0.86	0.45	30.90	1.02	0.52
QYL8GB	X	27.41	-1.73	-0.90	31.91	2.02	1.02
R2MM8D		31.30	2.16	1.13	32.10	2.22	1.12
RJZCCX		25.01	-4.13	-2.16	25.95	-3.93	-1.99
RZ7JQZ		30.60	1.46	0.76	31.40	1.52	0.77
T84MXA		29.32	0.18	0.10	29.96	0.08	0.04
TGAA7A		28.85	-0.29	-0.15	29.85	-0.03	-0.02
TJHJJ2		31.95	2.81	1.47	32.50	2.62	1.32
TNBPUW		32.00	2.86	1.50	32.55	2.67	1.35
TNTTAA		28.50	-0.64	-0.33	28.75	-1.13	-0.57



ASEV-CTS Wine Industry Interlaboratory Testing Program
Analysis 910
Glucose + Fructose

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
TYC8DC		28.05	-1.09	-0.57	28.15	-1.73	-0.88
TYFK6E		29.40	0.26	0.14	30.15	0.27	0.14
U2F6D8		29.40	0.26	0.14	30.80	0.92	0.46
UZ2TJ9	X	10.21	-18.93	-9.89	10.21	-19.67	-9.95
V429NP		29.50	0.36	0.19	31.00	1.12	0.57
V772F3		29.25	0.11	0.06	29.85	-0.03	-0.02
VBYWLG		28.72	-0.42	-0.22	28.80	-1.08	-0.55
VMB9U6	X	22.80	-6.34	-3.31	22.50	-7.38	-3.74
W936KU		28.61	-0.53	-0.28	29.05	-0.83	-0.42
WM9Z4W		28.73	-0.41	-0.21	30.22	0.33	0.17
X2MGRD		29.11	-0.03	-0.01	29.70	-0.19	-0.09
X3H673	X	24.65	-4.49	-2.34	27.89	-2.00	-1.01
XDXVQ7		28.95	-0.19	-0.10	30.20	0.32	0.16
XTTBYC		28.30	-0.84	-0.44	28.90	-0.98	-0.50
XYHTB3		25.96	-3.18	-1.66	27.04	-2.85	-1.44
Y43DP3		26.50	-2.64	-1.38	26.35	-3.53	-1.79
Y79XEN		29.09	-0.05	-0.02	30.16	0.28	0.14
YDDPQ8		29.65	0.51	0.27	30.45	0.57	0.29
YEMJNR	X	21.05	-8.09	-4.22	21.25	-8.63	-4.37
YH3E4P	*	25.10	-4.04	-2.11	27.10	-2.78	-1.41
YNDFAT		28.47	-0.67	-0.35	29.18	-0.71	-0.36
YRRXQB		29.25	0.11	0.06	30.56	0.67	0.34
ZGMEKZ		25.90	-3.24	-1.69	27.20	-2.68	-1.36

Grand Means	Summary Statistics
29.137 g/L	29.882 g/L
Std Dev Btwn Labs	
1.914 g/L	1.976 g/L
Statistics based on 85 of 93 reporting participants	

Wines tested: SA21: Rose; SA22: Rose



Comments on Assigned Data Flags for Test #910

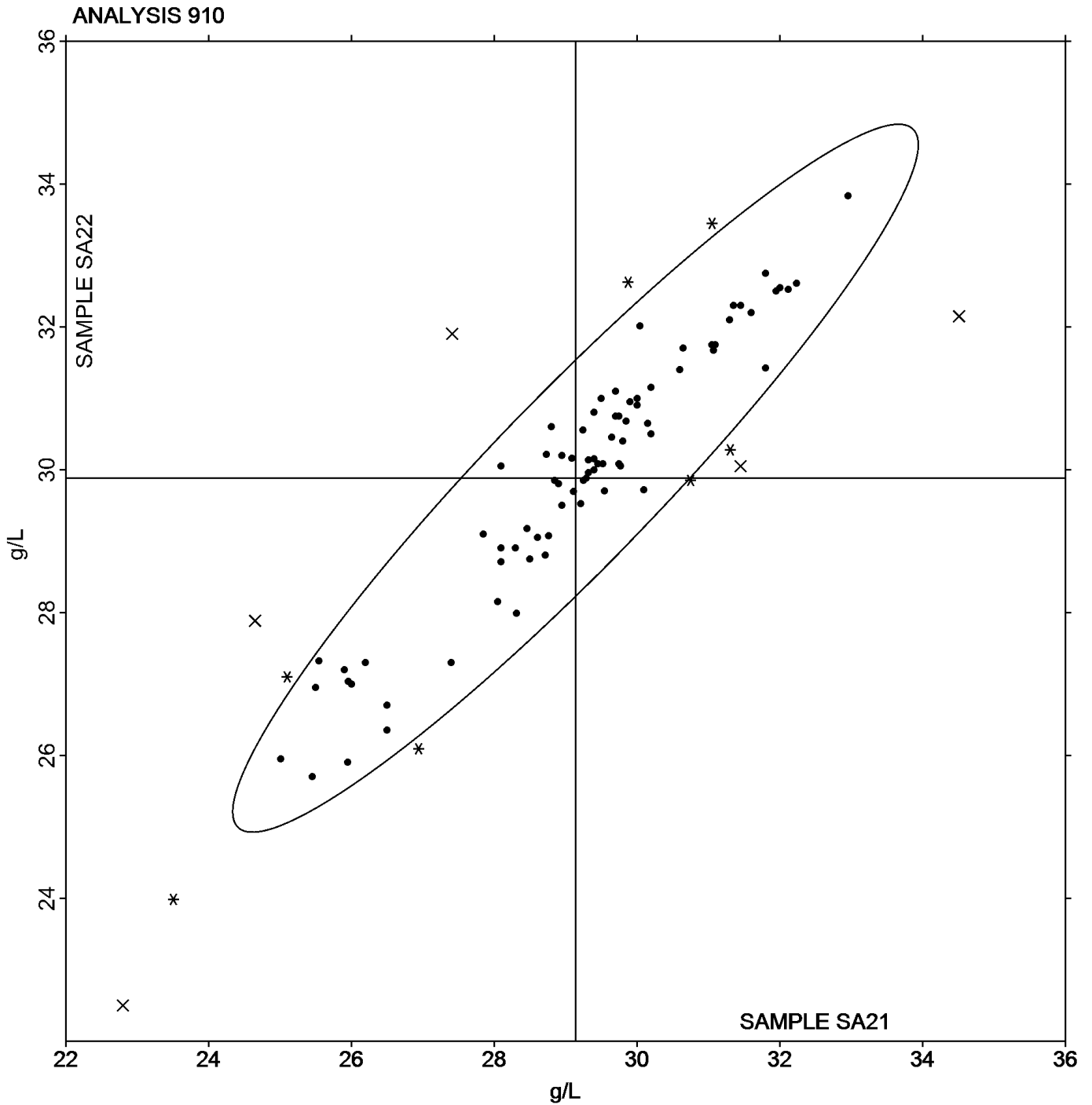
- UZ2TJ9 (X) - Data for both samples are low.
- 2WEM2Y (X) - Inconsistent in testing between samples.
- YEMJNR (X) - Data for both samples are low. Possible Systematic Error.
- GGADUH (X) - Inconsistent in testing between samples, data for Sample SA21 are high.
- 72VPRQ (X) - Data for both samples are low.
- VMB9U6 (X) - Data for both samples are low. Possible Systematic Error.
- X3H673 (X) - Inconsistent in testing between samples.
- QYL8GB (X) - Inconsistent in testing between samples.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA21			Sample SA22			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Please specify method used	28.950	0.000	-0.19	29.500	0.000	-0.38	1/1
HPLC	29.523	0.392	0.39	30.478	0.110	0.60	2/2
Enzymatic/Spectrophotometric	29.162	1.980	0.02	29.913	2.050	0.03	74/82
FTIR	28.684	2.225	-0.45	29.380	2.138	-0.50	5/5
Other _____	29.085	0.422	-0.05	29.683	0.569	-0.20	3/3



Analysis 910
Glucose + Fructose





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

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
27PNMY		0.1600	-0.0135	-0.28	0.1300	-0.0241	-0.45
38Z4D7	X	0.0850	-0.0885	-1.81	0.1400	-0.0141	-0.26
3GKG9V	*	0.2570	0.0835	1.71	0.2790	0.1249	2.31
BCEL3Y		0.1600	-0.0135	-0.28	0.1285	-0.0256	-0.47
BH6Y4M		0.1400	-0.0335	-0.69	0.1200	-0.0341	-0.63
BRZUAX		0.1550	-0.0185	-0.38	0.1400	-0.0141	-0.26
BT6LWJ		0.1350	-0.0385	-0.79	0.1150	-0.0391	-0.72
CEL42U		0.1950	0.0215	0.44	0.2050	0.0509	0.94
DY8HTN		0.1495	-0.0240	-0.49	0.1265	-0.0276	-0.51
E679T7	*	0.2700	0.0965	1.98	0.2250	0.0709	1.31
EFLBUX		0.1600	-0.0135	-0.28	0.1400	-0.0141	-0.26
EN4MAJ		0.1700	-0.0035	-0.07	0.1305	-0.0236	-0.44
GJ48JZ		0.1700	-0.0035	-0.07	0.1450	-0.0091	-0.17
LDUMFA		0.1685	-0.0050	-0.10	0.1435	-0.0106	-0.20
MBPGEA		0.1400	-0.0335	-0.69	0.1200	-0.0341	-0.63
MKWWKG		0.1250	-0.0485	-0.99	0.1150	-0.0391	-0.72
NVMATC		0.1000	-0.0735	-1.51	0.0800	-0.0741	-1.37
P69TT4		0.1730	-0.0005	-0.01	0.1395	-0.0146	-0.27
P8GQHD		0.1600	-0.0135	-0.28	0.1350	-0.0191	-0.35
PY7NWD		0.1630	-0.0105	-0.21	0.1555	0.0014	0.03
QM6FVL		0.2450	0.0715	1.47	0.2100	0.0559	1.04
RJZCCX		0.1250	-0.0485	-0.99	0.1200	-0.0341	-0.63
T84MXA	*	0.3100	0.1365	2.80	0.3250	0.1709	3.16
TGAA7A		0.2350	0.0615	1.26	0.2100	0.0559	1.04
TJHJ2		0.2050	0.0315	0.65	0.1800	0.0259	0.48
V429NP		0.1510	-0.0225	-0.46	0.1255	-0.0286	-0.53
VBYWLG		0.1550	-0.0185	-0.38	0.1300	-0.0241	-0.45
XTTBYC		0.1500	-0.0235	-0.48	0.1200	-0.0341	-0.63
YRRXQB		0.1300	-0.0435	-0.89	0.1200	-0.0341	-0.63



Analysis 911
Copper Content

Grand Means	Summary Statistics
0.17346 mg/L	0.15405 mg/L
Std Dev Btwn Labs	0.05403 mg/L
0.04876 mg/L	
Statistics based on 28 of 29 reporting participants	

Wines tested: SA21: Rose; SA22: Rose

Comments on Assigned Data Flags for Test #911

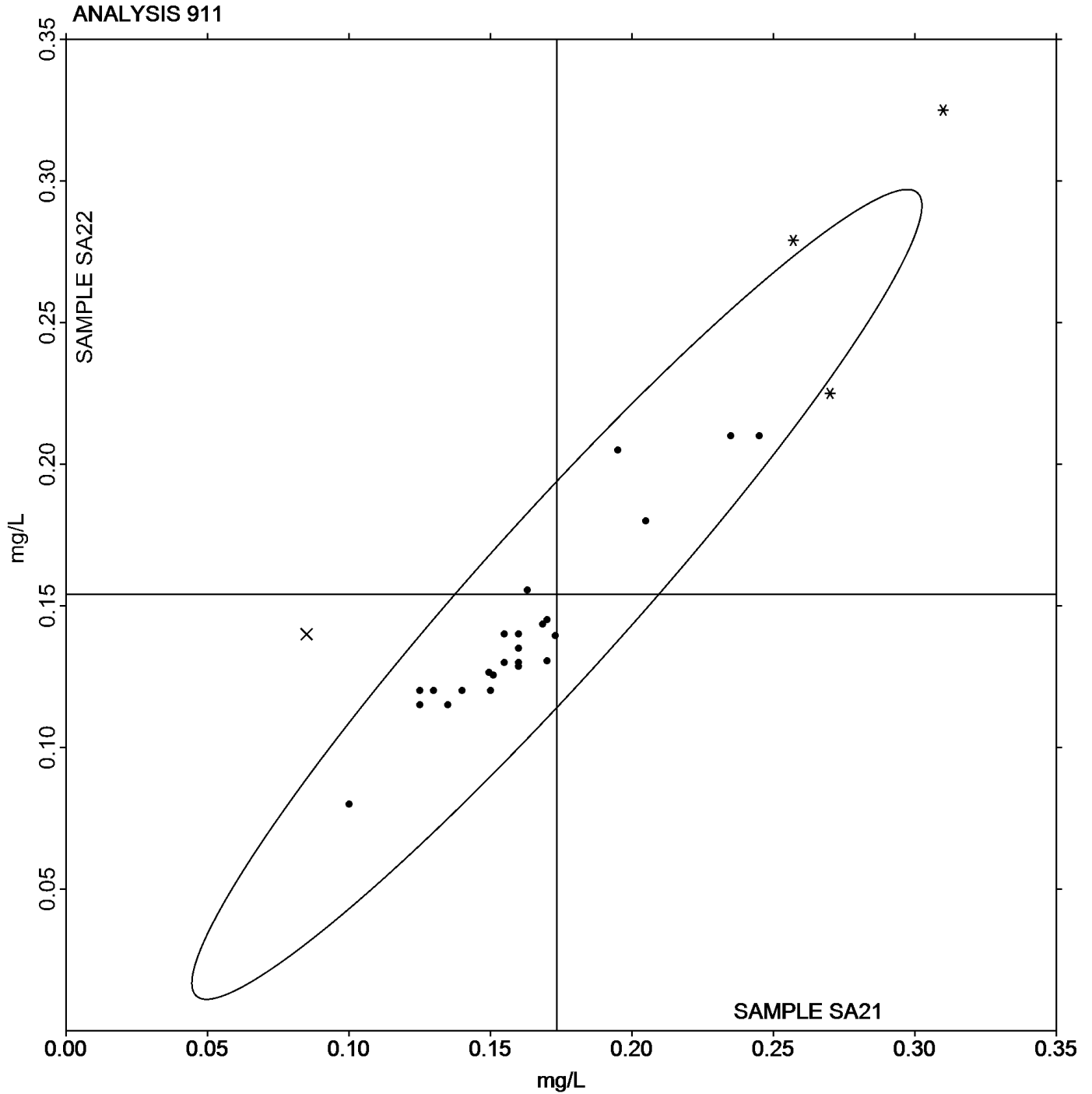
38Z4D7 (X) - Inconsistent in testing between samples.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA21			Sample SA22			Labs Incl / Rpt
	<i>Rose</i>			<i>Rose</i>			
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
Please specify method used	0.140	0.000	-0.0335	0.120	0.000	-0.0341	1/1
Atomic Absorption Spectroscopy	0.179	0.047	0.0057	0.156	0.055	0.0016	12/13
ICP-OES	0.150	0.017	-0.0231	0.133	0.014	-0.0211	8/8
Other _____	0.195	0.069	0.0215	0.180	0.077	0.0262	7/7



Analysis 911
Copper Content





ASEV-CTS Wine Industry Interlaboratory Testing Program
Analysis 912
Potassium (K) Content

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
27PNMY		751.5	-57.7	-0.57	727.0	-51.4	-0.53
2WEM2Y	*	984.0	174.8	1.71	826.5	48.1	0.50
38Z4D7		773.0	-36.2	-0.36	748.5	-29.9	-0.31
3GKG9V	X	0.0	-809.2	-7.94	0.1	-778.3	-8.01
43FHX4		932.0	122.8	1.20	965.5	187.1	1.93
BCEL3Y		833.5	24.3	0.24	816.0	37.6	0.39
BH6Y4M		751.5	-57.7	-0.57	717.5	-60.9	-0.63
BRZUAX		731.0	-78.2	-0.77	711.0	-67.4	-0.69
BT6LWJ		745.0	-64.2	-0.63	767.5	-10.9	-0.11
CEL42U		755.0	-54.2	-0.53	718.5	-59.9	-0.62
E679T7		865.7	56.4	0.55	839.6	61.2	0.63
EFLBUX		700.0	-109.2	-1.07	690.0	-88.4	-0.91
EN4MAJ	X	1,373.0	563.8	5.53	1,382.0	603.6	6.21
FE92GQ		879.0	69.8	0.68	867.5	89.1	0.92
GJ48JZ		903.5	94.3	0.92	858.5	80.1	0.82
MBPGEA		685.0	-124.2	-1.22	653.5	-124.9	-1.28
MKWWKG		767.5	-41.7	-0.41	775.0	-3.4	-0.03
P8GQHD		702.0	-107.2	-1.05	702.5	-75.9	-0.78
PY7NWD		757.0	-52.2	-0.51	723.0	-55.4	-0.57
QM6FVL	*	1,099.5	290.3	2.85	1,073.0	294.6	3.03
TGAA7A		867.0	57.8	0.57	805.0	26.6	0.27
TYFK6E		805.8	-3.5	-0.03	777.3	-1.0	-0.01
X3H673		799.0	-10.2	-0.10	684.5	-93.9	-0.97
XTTBYC		829.0	19.8	0.19	757.0	-21.4	-0.22
YRRXQB		696.2	-113.0	-1.11	697.8	-80.5	-0.83

Grand Means		Summary Statistics	
	809.25 mg/L		778.36 mg/L
Std Dev Btwn Labs			97.20 mg/L
	101.92 mg/L		
Statistics based on 23 of 25 reporting participants			

Wines tested: SA21: Rose; SA22: Rose



Analysis 912
Potassium (K) Content

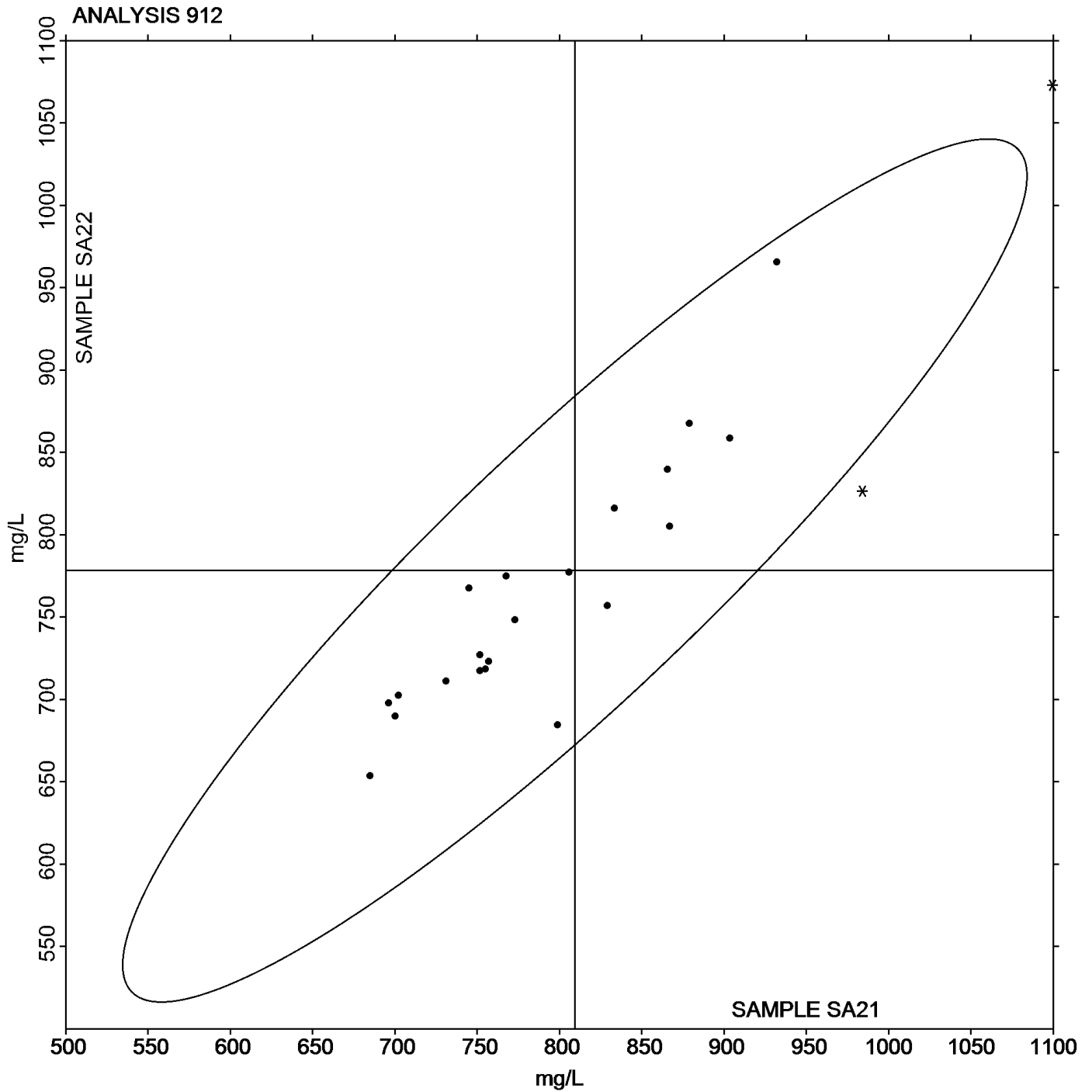
Comments on Assigned Data Flags for Test #912

EN4MAJ (X) - Data for both samples are high. Possible Systematic Error.

3GKG9V (X) - Extreme data.

Results by Methodology (as reported by laboratory)

Test Methodology	Sample SA21			Sample SA22			Labs Incl / Rpt
	Group Mean	Btwn Lab STD	Diff from GM	Group Mean	Btwn Lab STD	Diff from GM	
	<i>Rose</i>			<i>Rose</i>			
Please specify method used	721.000	50.912	-88.2	688.250	49.144	-90.1	2/3
Atomic Absorption Spectroscopy	838.756	131.217	29.5	820.188	122.465	41.8	7/8
ICP-OES	769.283	82.536	-40.0	748.471	70.730	-29.9	6/6
FTIR	798.250	43.487	-11.0	766.000	12.728	-12.4	2/2
Other _____	847.861	96.152	38.6	793.598	104.618	15.2	6/6





ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #061
Spring 2019

Analysis 915 A420nm (1cm path)

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2TF9E9		0.1800	-0.0091	-0.92	0.1700	-0.0082	-0.91
2WEM2Y	X	0.0500	-0.1391	-14.07	0.0489	-0.1293	-14.38
38Z4D7		0.1730	-0.0161	-1.63	0.1700	-0.0082	-0.91
43FHX4		0.2080	0.0189	1.91	0.1970	0.0188	2.09
7DQU4W		0.1950	0.0059	0.60	0.1870	0.0088	0.98
7ZLCTW		0.1960	0.0069	0.70	0.1795	0.0013	0.15
AWRNNY		0.1890	-0.0001	-0.01	0.1720	-0.0062	-0.69
B7AURF	X	0.1700	-0.0191	-1.93	0.1455	-0.0327	-3.63
BCEL3Y		0.1860	-0.0031	-0.31	0.1780	-0.0002	-0.02
BRZUAX		0.1860	-0.0031	-0.31	0.1750	-0.0032	-0.35
BT6LWJ		0.1880	-0.0011	-0.11	0.1760	-0.0022	-0.24
CEL42U	*	0.2000	0.0109	1.10	0.1750	-0.0032	-0.35
DEDQNH		0.2030	0.0139	1.41	0.1880	0.0098	1.09
DPV6RK		0.1980	0.0089	0.90	0.1850	0.0068	0.76
E679T7		0.1895	0.0004	0.04	0.1775	-0.0007	-0.08
E7H6VP		0.2030	0.0139	1.41	0.1885	0.0103	1.15
EN4MAJ		0.1860	-0.0031	-0.31	0.1760	-0.0022	-0.24
ERKTP7	*	0.1778	-0.0113	-1.15	0.1814	0.0032	0.35
GJ48JZ	*	0.2075	0.0184	1.86	0.2045	0.0263	2.93
GKD9DK		0.1840	-0.0051	-0.51	0.1830	0.0048	0.54
GZ8NLR		0.1915	0.0024	0.24	0.1775	-0.0007	-0.08
HLFLDJ	X	0.1520	-0.0371	-3.75	0.1420	-0.0362	-4.02
HMACHD	X	0.0540	-0.1351	-13.67	0.0520	-0.1262	-14.03
JLYKBG		0.1850	-0.0041	-0.41	0.1720	-0.0062	-0.69
KC42AE		0.1920	0.0029	0.30	0.1790	0.0008	0.09
KYJM7E		0.1810	-0.0081	-0.82	0.1690	-0.0092	-1.02
LDUMFA		0.1960	0.0069	0.70	0.1830	0.0048	0.54
LXKLWG		0.1920	0.0029	0.30	0.1780	-0.0002	-0.02
MBLUYG		0.1793	-0.0098	-0.99	0.1605	-0.0177	-1.97
MKWWKG	X	0.3065	0.1174	11.88	0.2975	0.1193	13.27
MRPDQD		0.1850	-0.0041	-0.41	0.1740	-0.0042	-0.47
N3TWUT		0.1955	0.0064	0.65	0.1845	0.0063	0.70
NHLH89		0.1800	-0.0091	-0.92	0.1780	-0.0002	-0.02
NVMATC		0.1951	0.0060	0.61	0.1835	0.0053	0.59
P8GQHD		0.1940	0.0049	0.50	0.1840	0.0058	0.65



ASEV-CTS Wine Industry Interlaboratory Testing Program
Analysis 915
A420nm (1cm path)

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
PGMQVL		0.2060	0.0169	1.71	0.1905	0.0123	1.37
PY7NWD		0.1815	-0.0076	-0.77	0.1755	-0.0027	-0.30
QM6FVL		0.1750	-0.0141	-1.43	0.1700	-0.0082	-0.91
QYL8GB		0.1950	0.0059	0.60	0.1840	0.0058	0.65
RJZCCX		0.1800	-0.0091	-0.92	0.1700	-0.0082	-0.91
RZ7JQZ		0.1900	0.0009	0.09	0.1750	-0.0032	-0.35
T84MXA	X	0.1810	-0.0081	-0.82	0.1975	0.0193	2.15
TGAA7A		0.1845	-0.0046	-0.46	0.1770	-0.0012	-0.13
TJHJ2		0.1887	-0.0004	-0.04	0.1782	0.0000	0.00
TNTTAA	X	0.2130	0.0239	2.42	0.2100	0.0318	3.54
U2F6D8		0.1850	-0.0041	-0.41	0.1770	-0.0012	-0.13
V429NP		0.1840	-0.0051	-0.51	0.1765	-0.0017	-0.19
VBYWLG		0.1935	0.0044	0.45	0.1790	0.0008	0.09
X2MGRD		0.1855	-0.0036	-0.36	0.1710	-0.0072	-0.80
X3H673	*	0.1660	-0.0231	-2.34	0.1540	-0.0242	-2.69
XDXVQ7	*	0.1620	-0.0271	-2.74	0.1565	-0.0217	-2.41
XTTBYC		0.1930	0.0039	0.40	0.1790	0.0008	0.09
Y79XEN		0.1920	0.0029	0.30	0.1865	0.0083	0.93
YDDPQ8		0.1975	0.0084	0.85	0.1790	0.0008	0.09
YH3E4P	X	0.0040	-0.1851	-18.73	0.0040	-0.1742	-19.37
YRRXQB		0.2006	0.0115	1.16	0.1877	0.0095	1.06
ZGMEKZ	X	0.1555	-0.0336	-3.40	0.1875	0.0093	1.04

Grand Means	Summary Statistics
0.18908 Absorbance Units	0.17818 Absorbance Units
Stnd Dev Btwn Labs	
0.00988 Absorbance Units	0.00899 Absorbance Units
Statistics based on 48 of 57 reporting participants	

Wines tested: SA21: Rose; SA22: Rose



Comments on Assigned Data Flags for Test #915

2WEM2Y (X) - Data for both samples are low.

TNTTAA (X) - Inconsistent in testing between samples, data for Sample SA22 are high.

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

YH3E4P (X) - Extreme data.

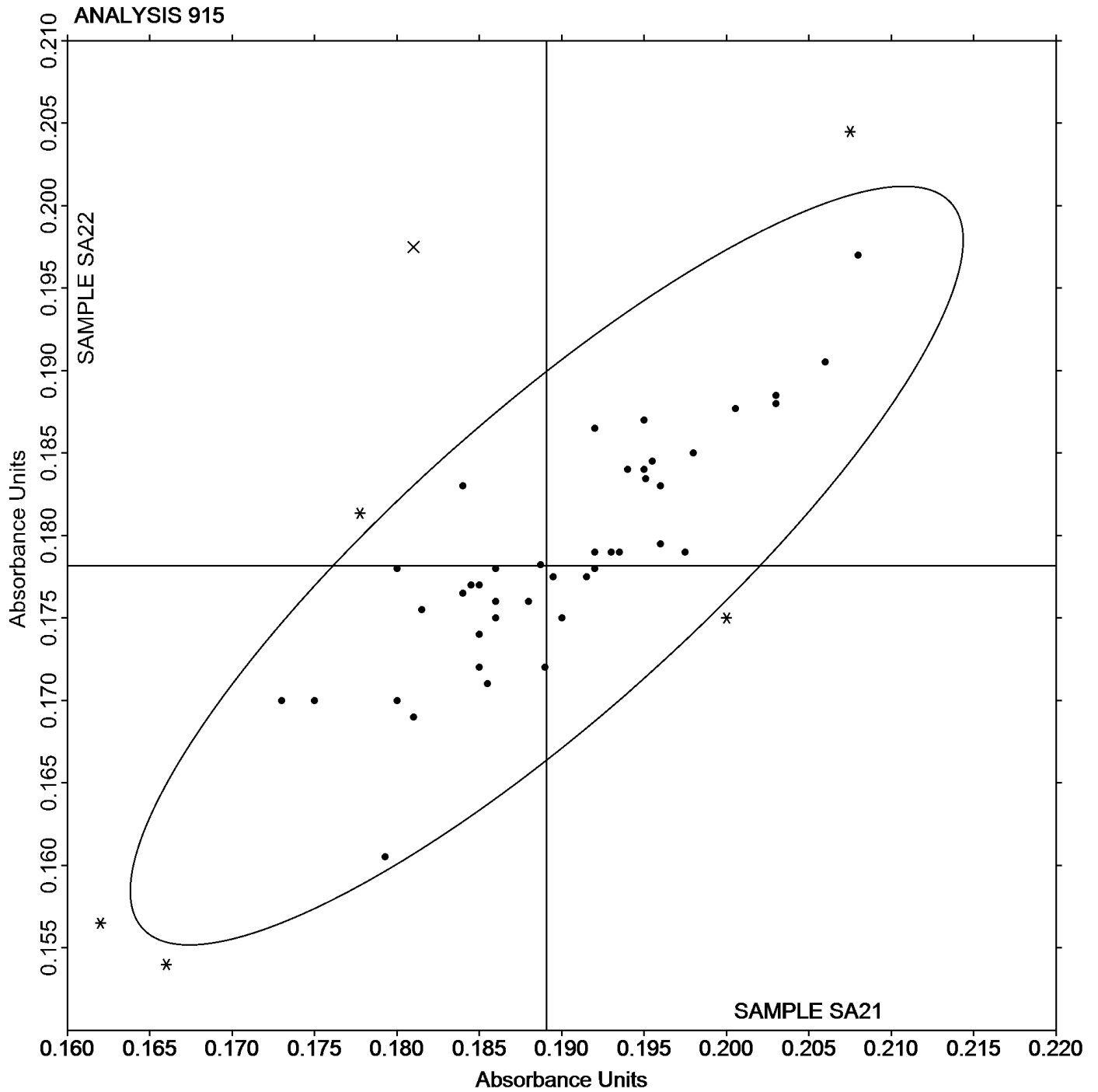
B7AURF (X) - Inconsistent in testing between samples, data for sample SA22 are low. Inconsistent within the determinations of sample SA21.

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

ZGMEKZ (X) - Inconsistent in testing between samples, data for Sample SA21 are low.

T84MXA (X) - Inconsistent in testing between samples.

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





ASEV-CTS Wine Industry Interlaboratory Testing Program

Report #061
Spring 2019

Analysis 916 A520nm (1cm path)

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
2TF9E9		0.1100	0.0011	0.17	0.1100	0.0037	0.58
2WEM2Y	X	0.0346	-0.0743	-11.77	0.0348	-0.0715	-11.16
38Z4D7		0.0965	-0.0124	-1.97	0.0985	-0.0078	-1.21
43FHX4	*	0.1250	0.0161	2.55	0.1215	0.0152	2.38
7DQU4W	*	0.1210	0.0121	1.91	0.1090	0.0027	0.43
7ZLCTW		0.1085	-0.0004	-0.07	0.1050	-0.0013	-0.20
AWRNNY		0.1070	-0.0019	-0.30	0.1010	-0.0053	-0.82
B7AURF	X	0.0930	-0.0159	-2.52	0.0765	-0.0298	-4.65
BCEL3Y		0.1030	-0.0059	-0.94	0.1025	-0.0038	-0.59
BRZUAX		0.1045	-0.0044	-0.70	0.1030	-0.0033	-0.51
BT6LWJ		0.1080	-0.0009	-0.14	0.1035	-0.0028	-0.43
CEL42U	*	0.1150	0.0061	0.96	0.1015	-0.0048	-0.74
DEDQNH		0.1140	0.0051	0.81	0.1110	0.0047	0.74
DPV6RK		0.1090	0.0001	0.01	0.1090	0.0027	0.43
E679T7		0.1085	-0.0004	-0.07	0.1050	-0.0013	-0.20
E7H6VP		0.1115	0.0026	0.41	0.1055	-0.0008	-0.12
EN4MAJ	X	0.1070	-0.0019	-0.30	0.2820	0.1757	27.45
ERKTP7	*	0.1086	-0.0004	-0.06	0.1169	0.0106	1.65
GJ48JZ	X	0.1205	0.0116	1.83	0.1310	0.0247	3.86
GKD9DK		0.1040	-0.0049	-0.78	0.1020	-0.0043	-0.66
GZ8NLR		0.1080	-0.0009	-0.14	0.1040	-0.0023	-0.35
HLFLDJ	X	0.0720	-0.0369	-5.85	0.0720	-0.0343	-5.35
HMACHD	X	0.0450	-0.0639	-10.12	0.0450	-0.0613	-9.57
JLYKBG		0.1045	-0.0044	-0.70	0.1015	-0.0048	-0.74
KC42AE		0.1075	-0.0014	-0.22	0.1035	-0.0028	-0.43
KYJM7E		0.1045	-0.0044	-0.70	0.1020	-0.0043	-0.66
LDUMFA		0.1115	0.0026	0.41	0.1085	0.0022	0.35
LXKLWG		0.0970	-0.0119	-1.89	0.0945	-0.0118	-1.84
MBLUYG		0.1022	-0.0067	-1.06	0.0945	-0.0118	-1.84
MKWWKG	X	0.1855	0.0766	12.13	0.1755	0.0692	10.82
MRPDQD		0.1055	-0.0034	-0.54	0.1065	0.0002	0.04
N3TWUT		0.1095	0.0006	0.09	0.1060	-0.0003	-0.04
NHLH89		0.1060	-0.0029	-0.46	0.1040	-0.0023	-0.35
NVMATC		0.1092	0.0003	0.05	0.1086	0.0023	0.37
P8GQHD		0.1080	-0.0009	-0.14	0.1060	-0.0003	-0.04



ASEV-CTS Wine Industry Interlaboratory Testing Program
Analysis 916
A520nm (1cm path)

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV
PGMQVL		0.1160	0.0071	1.12	0.1100	0.0037	0.58
PY7NWD		0.1035	-0.0054	-0.86	0.1005	-0.0058	-0.90
QM6FVL		0.1100	0.0011	0.17	0.1100	0.0037	0.58
QYL8GB		0.1120	0.0031	0.49	0.1090	0.0027	0.43
RJZCCX		0.1000	-0.0089	-1.41	0.1050	-0.0013	-0.20
RZ7JQZ		0.1250	0.0161	2.55	0.1200	0.0137	2.15
T84MXA		0.1110	0.0021	0.33	0.1150	0.0087	1.37
TGAA7A		0.1053	-0.0037	-0.58	0.1080	0.0017	0.26
TJHJJ2		0.0995	-0.0094	-1.49	0.0962	-0.0100	-1.56
TNTTAA	*	0.1220	0.0131	2.07	0.1240	0.0177	2.77
U2F6D8		0.1050	-0.0039	-0.62	0.1020	-0.0043	-0.66
V429NP		0.1060	-0.0029	-0.46	0.1000	-0.0063	-0.98
VBYWLG		0.1130	0.0041	0.65	0.1085	0.0022	0.35
X2MGRD		0.1075	-0.0014	-0.22	0.1020	-0.0043	-0.66
X3H673	X	0.0820	-0.0269	-4.26	0.0770	-0.0293	-4.57
XDXVQ7	X	0.0700	-0.0389	-6.16	0.0720	-0.0343	-5.35
XTTBYC		0.1110	0.0021	0.33	0.1060	-0.0003	-0.04
Y79XEN		0.1075	-0.0014	-0.22	0.1085	0.0022	0.35
YDDPQ8		0.1115	0.0026	0.41	0.1030	-0.0033	-0.51
YH3E4P	X	0.0020	-0.1069	-16.93	0.0020	-0.1043	-16.28
YRRXQB		0.1168	0.0079	1.25	0.1157	0.0094	1.47
ZGMEKZ	X	0.0800	-0.0289	-4.58	0.1105	0.0042	0.66

Grand Means	Summary Statistics
0.10891 Absorbance Units	0.10626 Absorbance Units
Stnd Dev Btwn Labs	
0.00631 Absorbance Units	0.00640 Absorbance Units
Statistics based on 46 of 57 reporting participants	

Wines tested: SA21: Rose; SA22: Rose

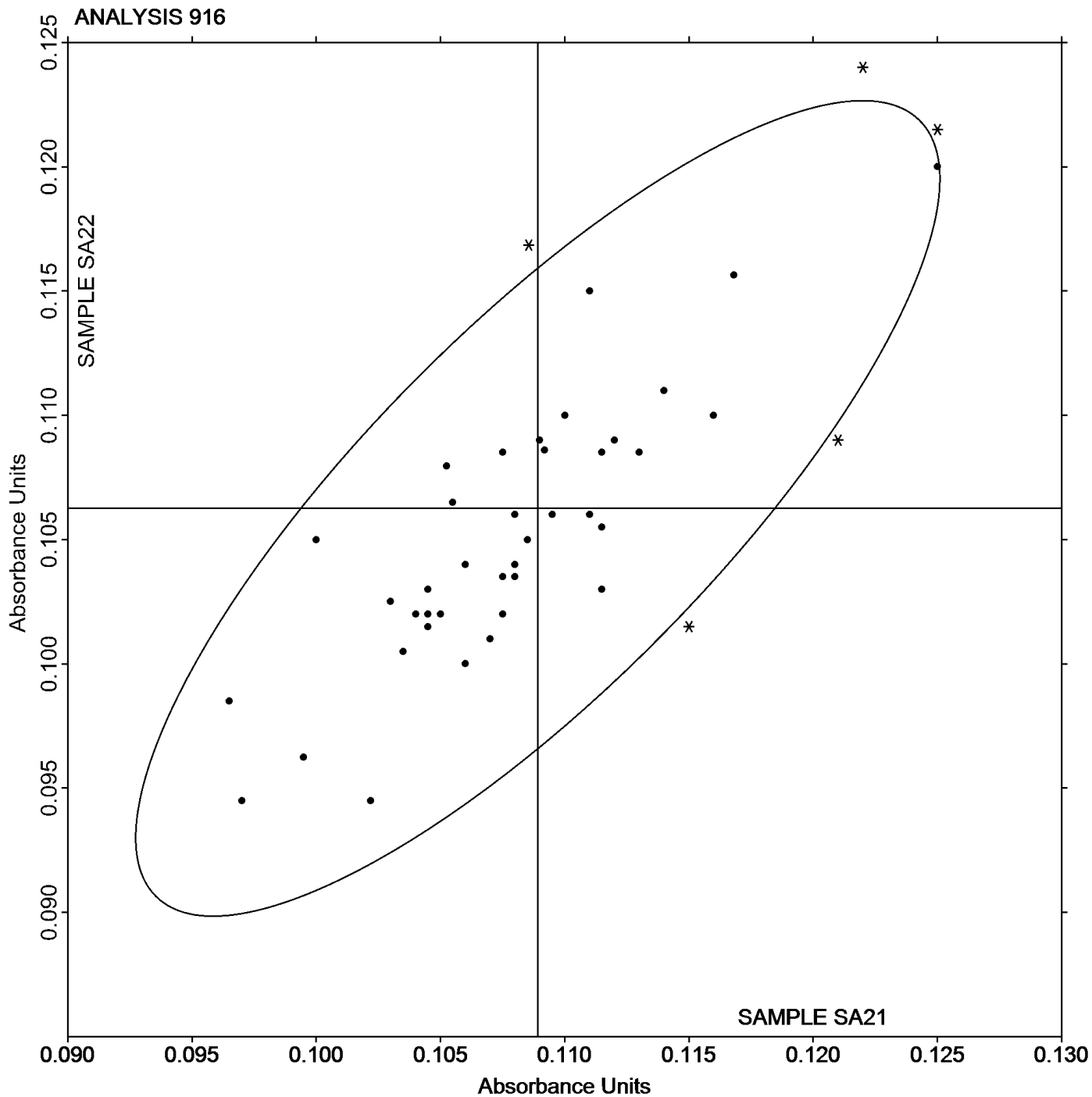


Comments on Assigned Data Flags for Test #916

- GJ48JZ (X) - Inconsistent in testing between samples, data for Sample SA22 are high.
- 2WEM2Y (X) - Data for both samples are low.
- EN4MAJ (X) - Inconsistent in testing between samples, data for Sample SA22 are high.
- MKWWKG (X) - Data for both samples are high.
- YH3E4P (X) - Extreme data.
- B7AURF (X) - Inconsistent in testing between samples, data for sample SA22 are low. Inconsistent within the determinations of sample SA21.
- HMACHD (X) - Data for both samples are low.
- XDXVQ7 (X) - Data for both samples are low. Possible Systematic Error.
- ZGMEKZ (X) - Inconsistent in testing between samples, data for Sample SA21 are low.
- HLFLDJ (X) - Data for both samples are low. Possible Systematic Error.
- X3H673 (X) - Data for both samples are low. Possible Systematic Error.



Analysis 916
A520nm (1cm path)





ASEV-CTS Wine Industry Interlaboratory Testing Program
Research Property 950
Research Property - Dissolved CO2

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Target Value	% Diff from Target Value	Lab Mean	Diff from Target Value	% Diff from Target Value
7ZLCTW	M	0.0230	-0.0737	-0.49	No data reported for this sample		
BCEL3Y		0.0330	-0.0637	-0.43	0.0555	-0.1209	-0.47
BT6LWJ		0.0400	-0.0567	-0.38	0.0600	-0.1164	-0.45
EFLBUX		0.0300	-0.0667	-0.45	0.0700	-0.1064	-0.42
EN4MAJ		0.0435	-0.0532	-0.36	0.0620	-0.1144	-0.45
GJ48JZ		0.0500	-0.0467	-0.31	0.0600	-0.1164	-0.45
MBPGEA		0.0450	-0.0517	-0.35	0.0550	-0.1214	-0.47
NHLH89		0.1645	0.0678	0.45	0.1900	0.0136	0.05
P8GQHD		0.0100	-0.0867	-0.58	0.0200	-0.1564	-0.61
QM6FVL		0.1600	0.0633	0.42	0.1850	0.0086	0.03
QYL8GB		0.0500	-0.0467	-0.31	0.1000	-0.0764	-0.30
T84MXA		0.0400	-0.0567	-0.38	0.0600	-0.1164	-0.45
TGAA7A	*	0.5900	0.4933	3.31	0.8300	0.6536	2.56
TNBPUW	M	No data reported for this sample			0.0750	-0.1014	-0.40
U2F6D8	X	3.4000	3.3033	22.16	3.6000	3.4236	13.39
X3H673		0.0480	-0.0487	-0.33	0.0215	-0.1549	-0.61
YDDPQ8	*	0.0500	-0.0467	-0.31	0.7000	0.5236	2.05

Research Property Consensus Value

Consensus Average

0.09671 g/L

0.17636 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 14 reporting participants.

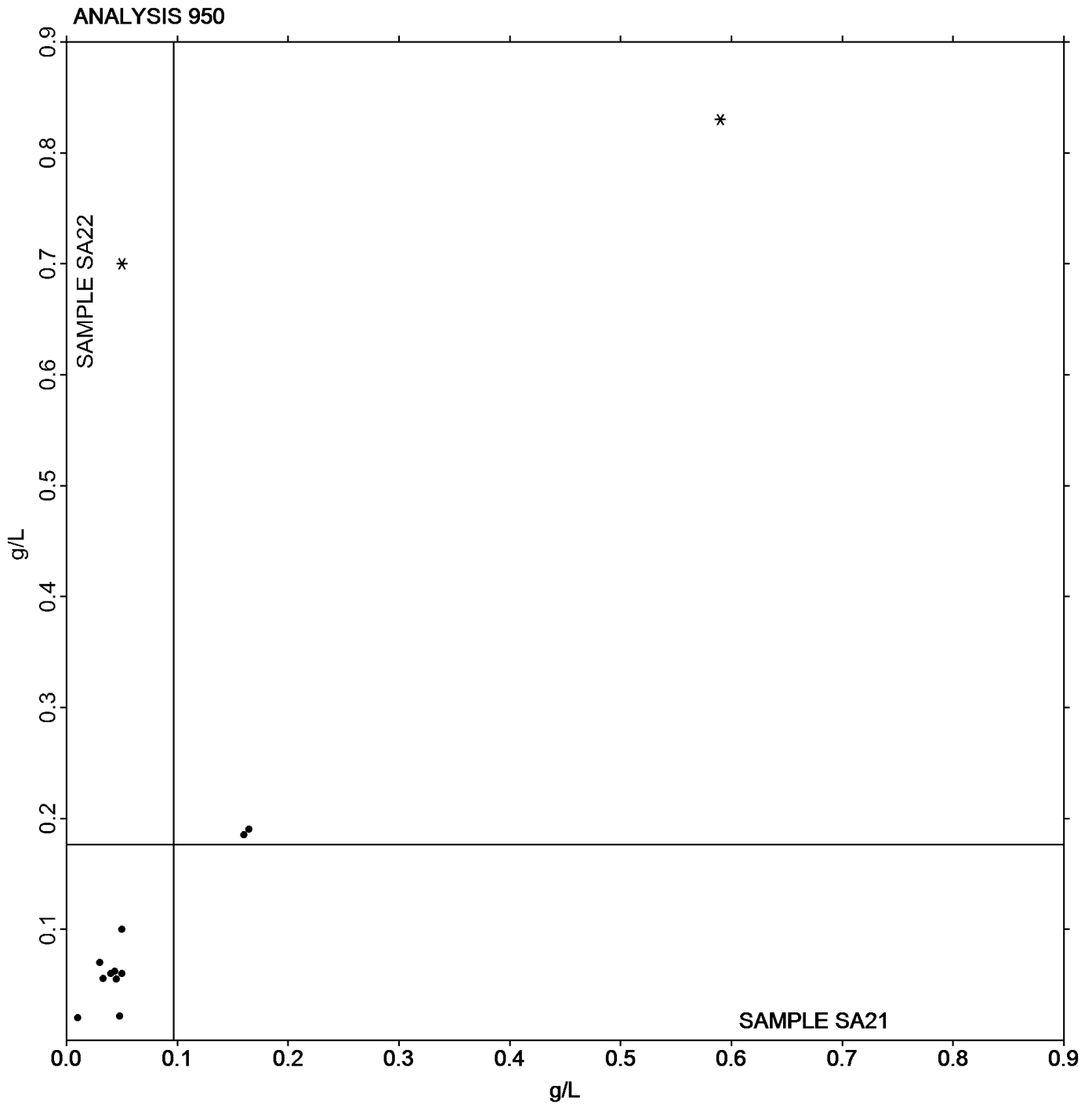
Wines tested: SA21: Rose; SA22: Rose

Comments on Assigned Data Flags for Test #950

7ZLCTW (M) - Participant did not submit data for sample SA22.

TNBPUW (M) - Participant did not submit data for sample SA21.

U2F6D8 (X) - Extreme data.



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: Citric Acid

Report #061
Spring 2019

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Target Value	% Diff from Target Value	Lab Mean	Diff from Target Value	% Diff from Target Value
2TF9E9		0.4350	0.0296	0.32	0.3950	0.0052	0.06
38Z4D7		0.4300	0.0246	0.27	0.3950	0.0052	0.06
BCEL3Y		0.4000	-0.0054	-0.06	0.3800	-0.0098	-0.11
BH6Y4M		0.4980	0.0926	1.01	0.4625	0.0727	0.79
BRZUAX		0.4885	0.0831	0.91	0.4570	0.0672	0.73
BT6LWJ		0.4350	0.0296	0.32	0.4050	0.0152	0.17
CEL42U		0.3585	-0.0469	-0.51	0.3550	-0.0348	-0.38
GJ48JZ		0.3800	-0.0254	-0.28	0.3750	-0.0148	-0.16
HMACHD	X	6.0000	5.5946	61.00	6.2000	5.8102	63.45
LXKLWG		0.5600	0.1546	1.69	0.5300	0.1402	1.53
MKWWKG		0.3550	-0.0504	-0.55	0.3450	-0.0448	-0.49
NHLH89		0.4650	0.0596	0.65	0.4600	0.0702	0.77
P8GQHD		0.4000	-0.0054	-0.06	0.4000	0.0102	0.11
TGAA7A		0.4265	0.0211	0.23	0.4015	0.0117	0.13
U2F6D8	*	0.5100	0.1046	1.14	0.5500	0.1602	1.75
VBYWLG		0.2500	-0.1554	-1.69	0.2100	-0.1798	-1.96
XTTBYC		0.2500	-0.1554	-1.69	0.2500	-0.1398	-1.53
YRRXQB		0.2500	-0.1554	-1.69	0.2550	-0.1348	-1.47

Research Property Consensus Value

Consensus Average

0.40538 g/L

0.38976 g/L

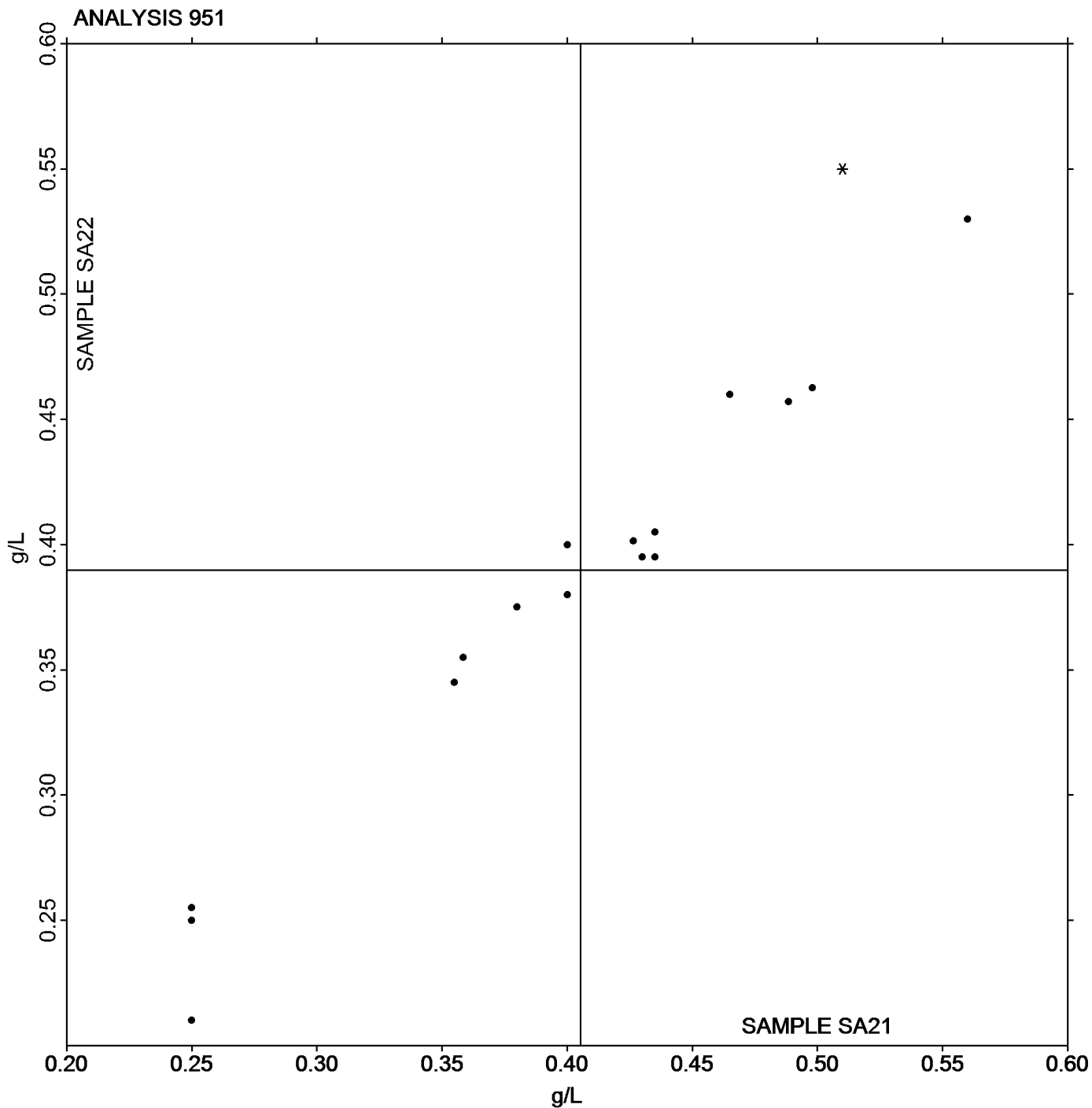
Note: Tests 950, 951 and 952, are research tests. As a result participants should use caution when evaluating data for these tests.

This consensus average is based on 17 reporting participants.

Wines tested: SA21: Rose; SA22: Rose

Comments on Assigned Data Flags for Test #951

HMACHD (X) - Extreme data.



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: Potassium Sorbate as Sorbic Acid

WebCode	Data Flag	Sample SA21			Sample SA22		
		Lab Mean	Diff from Target Value	% Diff from Target Value	Lab Mean	Diff from Target Value	% Diff from Target Value
27PNMY		143.5	-11.9	-1.35	148.0	-13.5	-1.36
7ZLCTW		155.5	0.1	0.01	163.5	2.0	0.20
AWRNNY	X	245.8	90.3	10.22	242.7	81.1	8.15
BCEL3Y		165.0	9.6	1.08	169.5	8.0	0.80
BRZUAX		161.5	6.1	0.68	167.0	5.5	0.55
BT6LWJ		164.5	9.1	1.02	167.5	6.0	0.60
CEL42U		163.3	7.8	0.88	172.0	10.5	1.05
DY8HTN		139.0	-16.4	-1.86	151.5	-10.0	-1.01
EN4MAJ		148.5	-6.9	-0.79	152.0	-9.5	-0.96
GKD9DK		160.0	4.6	0.51	165.0	3.5	0.35
JLYKBG	X	161.0	5.6	0.63	0.0	-161.5	-16.23
KYJM7E		142.0	-13.4	-1.52	147.9	-13.6	-1.37
LDUMFA		162.2	6.7	0.76	159.9	-1.7	-0.17
MKWWKG		165.5	10.1	1.14	170.5	9.0	0.90
P8GQHD		145.3	-10.2	-1.15	158.0	-3.5	-0.36
RJZCCX		158.7	3.3	0.37	160.4	-1.2	-0.12
T84MXA		148.2	-7.2	-0.82	147.1	-14.5	-1.45
TGAA7A	*	164.5	9.1	1.02	185.0	23.5	2.36
U2F6D8		155.0	-0.4	-0.05	159.0	-2.5	-0.26
YRRXQB		156.0	0.6	0.06	164.1	2.5	0.25

Research Property Consensus Value

Consensus Average

155.45 mg/L

161.54 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 18 reporting participants.

Wines tested: SA21: Rose; SA22: Rose

Comments on Assigned Data Flags for Test #952

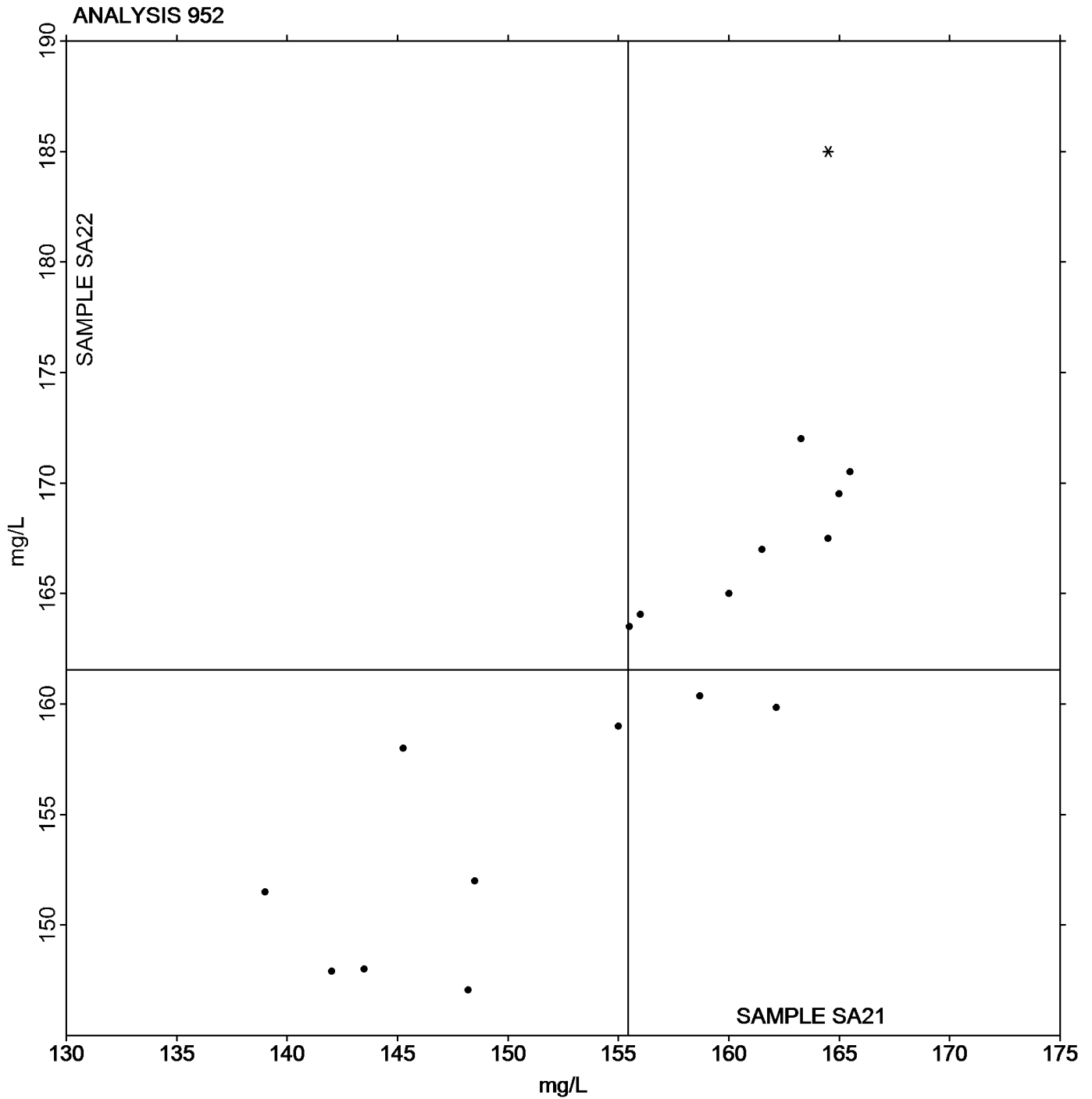
JLYKBG (X) - Extreme data for Sample SA22.

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



Analysis 952

Research Property: Potassium Sorbate as Sorbic Acid



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

-End of Report-