

Here is a sample of an Individual Report sent to participants in the CTS Wine Interlaboratory Testing Program. You can view the Summary Reports of all participants' data on this Web site.

Laboratory Manager
Vineyard
123 Main Street
Any town, Any state 12345

This is your Performance Analysis Report from the ASEV - CTS Wine Industry Interlaboratory Program Cycle # 016, Spring 2004

For guidance on interpreting this report, please refer to the enclosed Report Guide, located in the Wine section of our website www.collaborativetesting.com. If you need assistance with interpreting the statistics and terms used in the report, please reference the Key to Individual Reports that can be found on the reverse of this page. As always, you may contact the Program Analyst for assistance with any aspect of the program.

On each "Performance Analysis Report" there is a WebCode printed in the first column. Use your WebCodes to locate your results in the Summary Report that is now available on our Website. In order to maintain confidentiality, your WebCode will be unique for each analysis and will change with each report.

Samples used for this testing:

SA29 - Chardonnay

SA30 - Chardonnay

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Key to Individual Reports in the Wine Program

- Lab Code** - A permanent laboratory identification number used to maintain information on a confidential basis.
- WebCode** - A temporary assigned laboratory identification number used to ensure lab confidentiality while permitting a lab to locate its data in the Summary Report published on the CTS website www.collaborativetesting.com. The WebCode will be unique for each analysis and cycle.
- Lab Mean** - The average of the test determinations 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.
- 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).
- Data Flag** - DATA FLAGS are assigned based on the simultaneous analysis of both samples tested. Refer to the following table for an explanation of each symbol:

Data Flag	Statistically Included/Excluded	<u>ACTION REQUIRED</u>
*	INCLUDED	CAUTION -review testing procedure and monitor future results. Results fall outside the drawn 95% ellipse but within a 99% ellipse that is calculated but not drawn. Labs flagged with an * do not typically receive a specific note regarding the flag. If this error is repeated in future rounds, however, a lab may need to stop and review its testing procedures. The initial data flag is not cause for alarm.
X	EXCLUDED	STOP - immediate review of data and/or testing procedure is required. Results fall outside the 99% ellipse. See the specific note following the data for more information on why the data is excluded.
M	EXCLUDED	PROCEED - lab was unable to report data for at least one sample. However, a lab receiving two or more M flags for a test may need to stop and review its testing procedures.

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 included 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. Labs not receiving a data flag appear as points on the plot.



Performance Analysis Report - Trend Chart

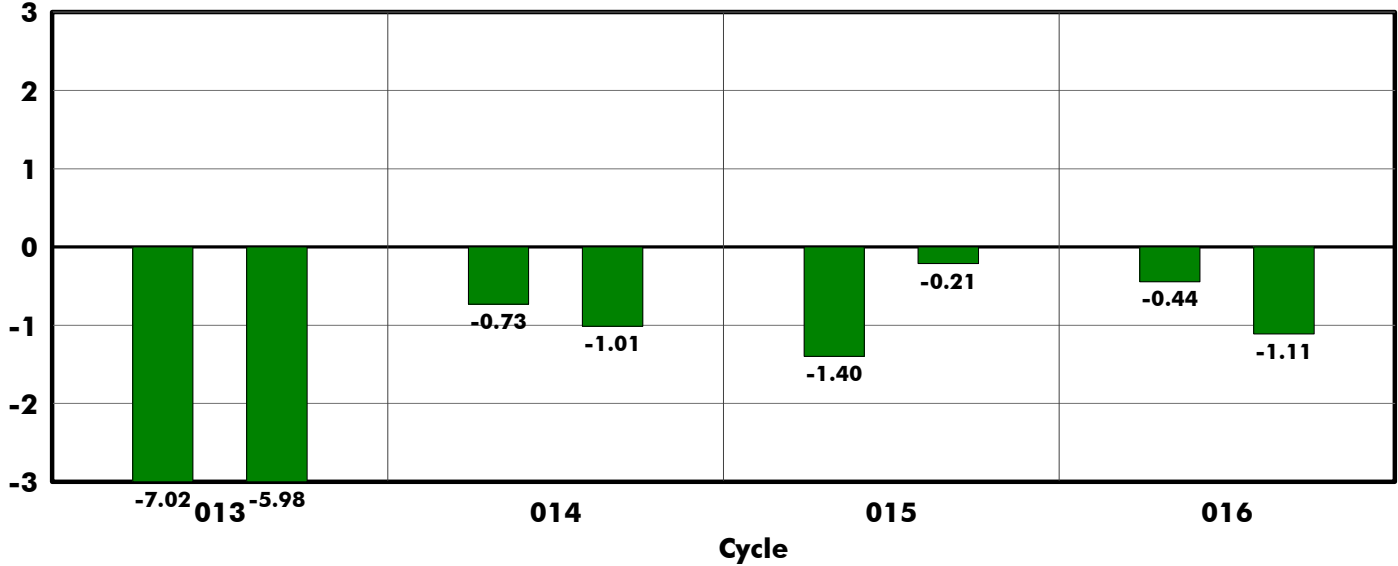
Lab Code: U: ****A

Analysis #901: Ethanol

data in units of percent

CPV

Trend Chart of CPV Results



A maximum of 4 test cycles are printed on this page, reflecting up to 18 months of testing. If there are fewer sets of bars than the maximum and the laboratory was enrolled for all cycles, then one of the following situations occurred: lab did not submit data for a particular test/testing cycle or the data sheets were received late.

$$\text{WebCode} \quad \text{Test Cycle} \quad \text{Sample Code \& Wine} \quad \left(\begin{matrix} \text{Lab Mean} \\ - \\ \text{Grand Mean} \end{matrix} \right) \div \text{Btwn Lab Std Dev} = \text{CPV} \quad \text{Data Flag}$$

AAAAA1	013	SA23 - White Merlot	10.56	11.342	0.111	-7.02	X	37 of 46 labs included
	Spring 2003	SA24 - White Merlot	10.66	11.317	0.110	-5.98		

BBBBB1	014	SA25 - Chardonnay	13.62	13.723	0.141	-0.73		52 of 59 labs included
	Summer 2003	SA26 - Chardonnay	13.52	13.637	0.116	-1.01		

CCCCC1	015	SA27 - Syrah	12.88	13.028	0.106	-1.40		45 of 47 labs included
	Fall 2003	SA28 - Pinot Noir	13.03	13.045	0.095	-0.21		

DDDDD1	016	SA29 - Chardonnay	13.06	13.132	0.161	-0.44		46 of 48 labs included
	Spring 2004	SA30 - Chardonnay	13.56	13.730	0.158	-1.11		

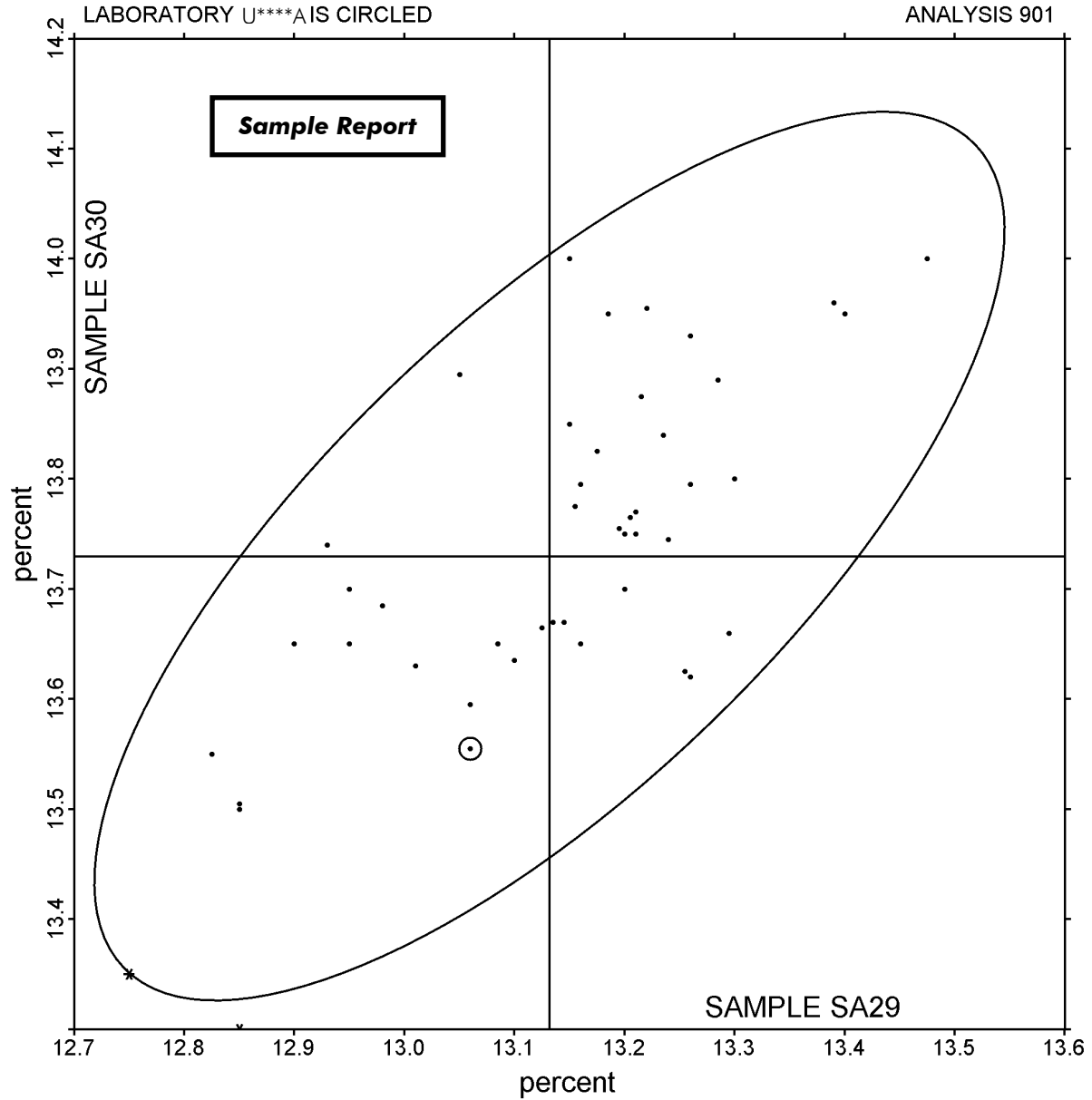
Sample Report

Performance Analysis Report - Current Cycle

Analysis #901: Ethanol
 Test Cycle 016 - Spring 2004
 Data in units of: percent

Lab Code: U ****A

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WebCode	Data Flag	Sample SA29			Sample SA30		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV

DDDDD1		13.06	-0.07	-0.44	13.56	-0.17	-1.11
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Consensus Results (all laboratories)

Grand Means	13.132 percent	13.730 percent
Btwn Lab Standard Deviation	0.161 percent	0.158 percent

Consensus statistics based on 46 of 48 reporting participants



Performance Analysis Report - Trend Chart

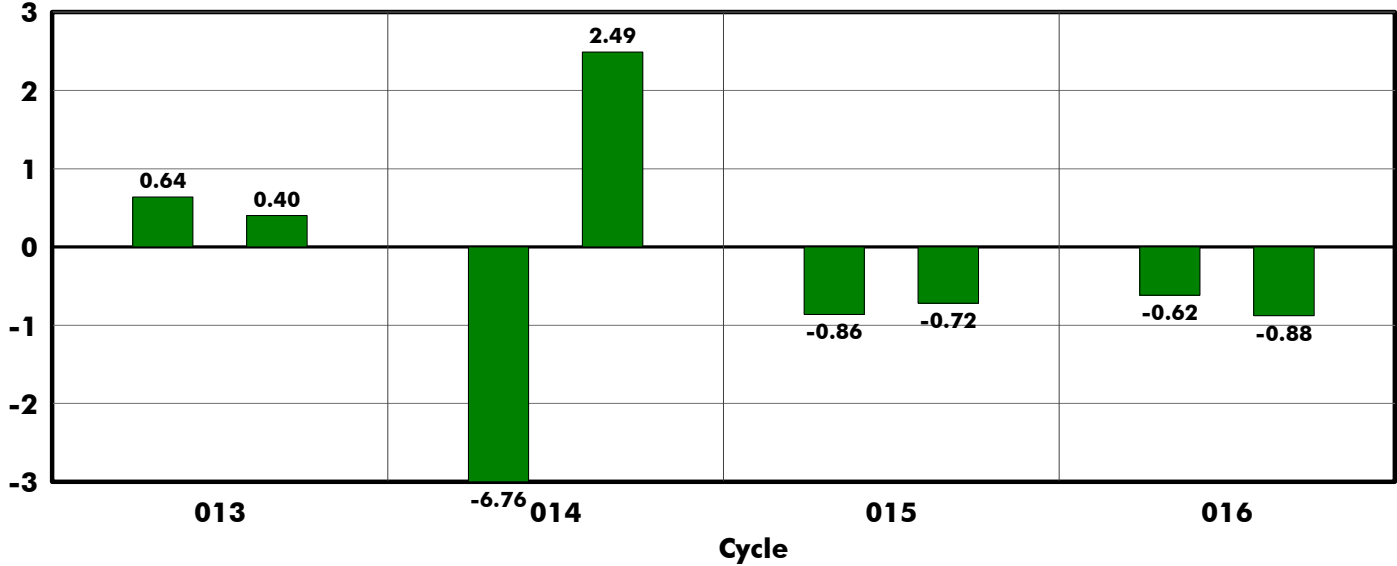
Lab Code: U: **A**

Analysis #907: pH

data in units of pH

CPV

Trend Chart of CPV Results



A maximum of 4 test cycles are printed on this page , reflecting up to 18 months of testing. If there are fewer sets of bars than the maximum and the laboratory was enrolled for all cycles, then one of the following situations occurred: lab did not submit data for a particular test/testing cycle or the data sheets were received late.

$$\text{WebCode} \quad \text{Test Cycle} \quad \text{Sample Code \& Wine} \quad \left(\text{Lab Mean} - \text{Grand Mean} \right) \div \text{Btwn Lab Std Dev} = \text{CPV} \quad \text{Data Flag}$$

AAAAA2	013	SA23 - White Merlot	3.254	3.2375	0.0250	0.64	41 of 46 labs included
	Spring 2003	SA24 - White Merlot	3.277	3.2659	0.0266	0.40	

BBBBB2	014	SA25 - Chardonnay	3.357	3.5908	0.0347	-6.76	52 of 59 labs included
	Summer 2003	SA26 - Chardonnay	3.521	3.4318	0.0358	2.49	

CCCCC2	015	SA27 - Syrah	3.474	3.5037	0.0346	-0.86	47 of 49 labs included
	Fall 2003	SA28 - Pinot Noir	3.549	3.5708	0.0303	-0.72	

DDDDD2	016	SA29 - Chardonnay	3.411	3.4277	0.0278	-0.62	48 of 53 labs included
	Spring 2004	SA30 - Chardonnay	3.577	3.5997	0.0264	-0.88	

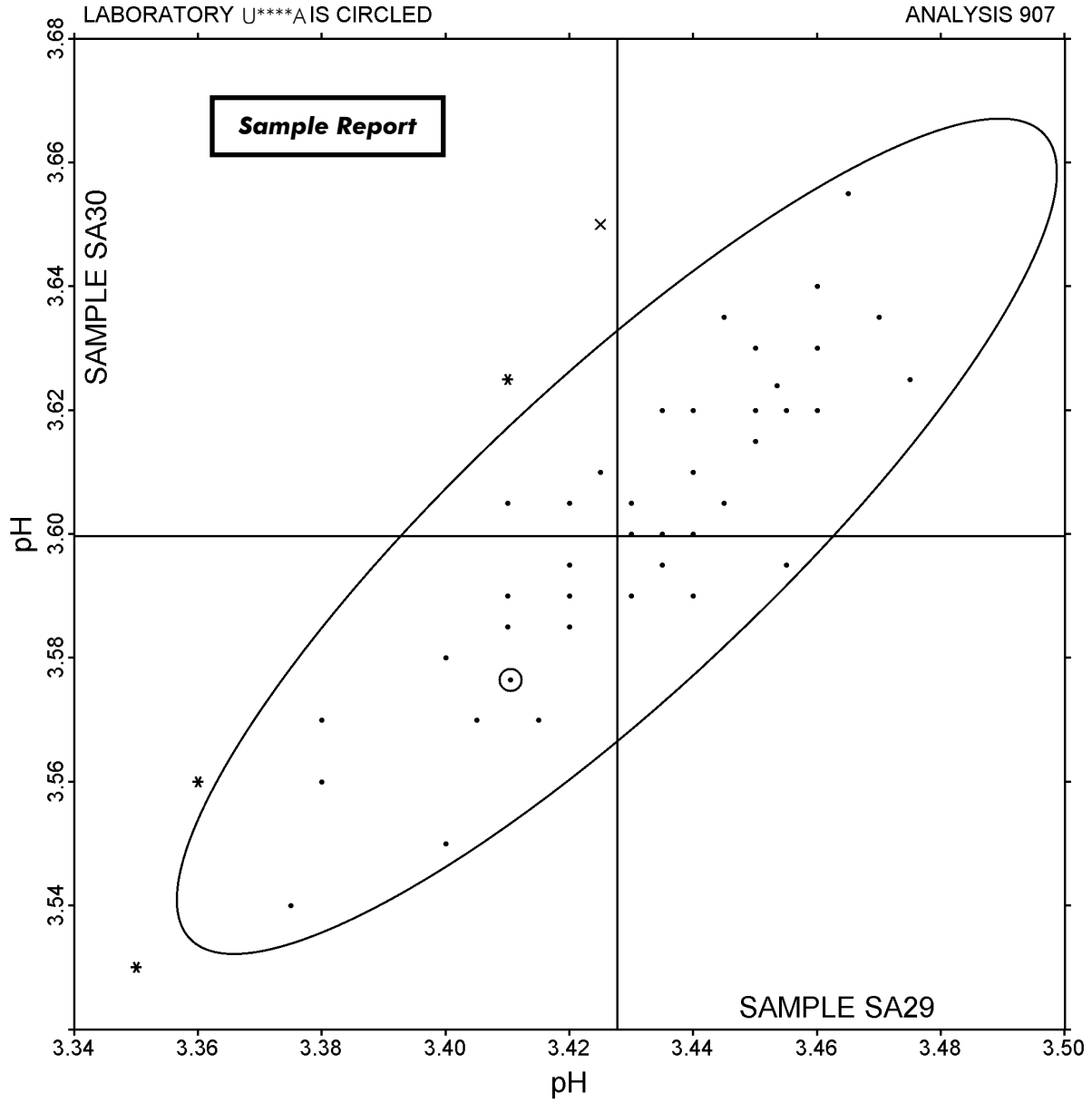
Sample Report

Performance Analysis Report - Current Cycle

Analysis #907: pH
 Test Cycle 016 - Spring 2004
 Data in units of: pH

Lab Code: U ****A

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WebCode	Data Flag	Sample SA29			Sample SA30		
		Lab Mean	Diff from Grand Mean	CPV	Lab Mean	Diff from Grand Mean	CPV

DDDDD2		3.411	-0.017	-0.62	3.577	-0.023	-0.88
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Consensus Results (all laboratories)

Grand Means	3.4277 pH	3.5997 pH
Btwn Lab Standard Deviation	0.0278 pH	0.0264 pH

Consensus statistics based on 48 of 53 reporting participants