Laboratory Name:

This file contains the inventory and template form for software quality assurance FileName: Macintosh HD:private:var:folders:37:71m6ffz93

Version	Date	Initials
1.0	1-Apr-09	GH
2	6/25/10	GH
2.1	6/25/10	TS

Modifications
Basic Software Inventory - original file
Sheets added for Revisions, Computer Inventory, COTS, and Assessment Form A; Codes removed from Software
Inventory; Measurement Parameters added to Inventory
Technical Assessment form modified and inserted as Form A.

*'*isions

Laboratory Computer Inventory

Computer	Model	Service 1	ID Tag No.	Location

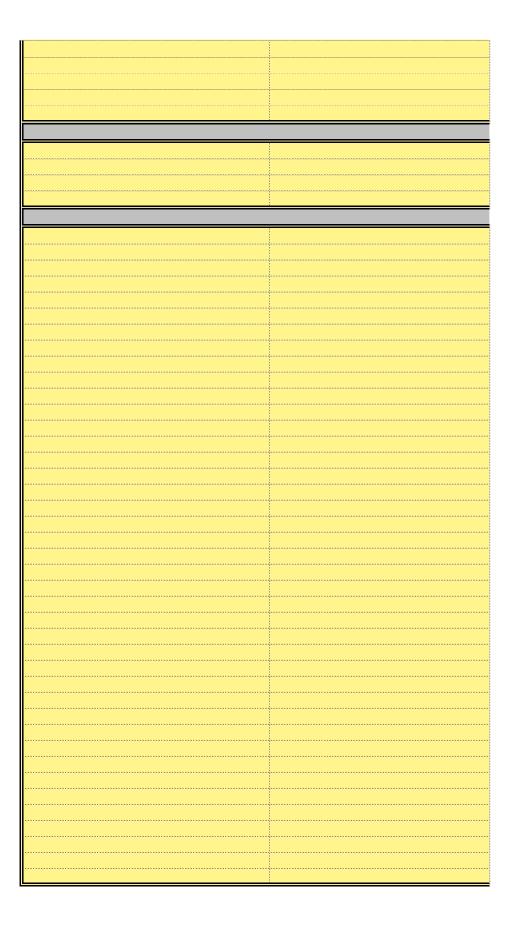
Operating System	Processor	Installed	Status	Maintenance

Network

Commercial-off-the-Shelf (COTS) Software Used in the Laboratory

Software Program	Source	Date Implemented

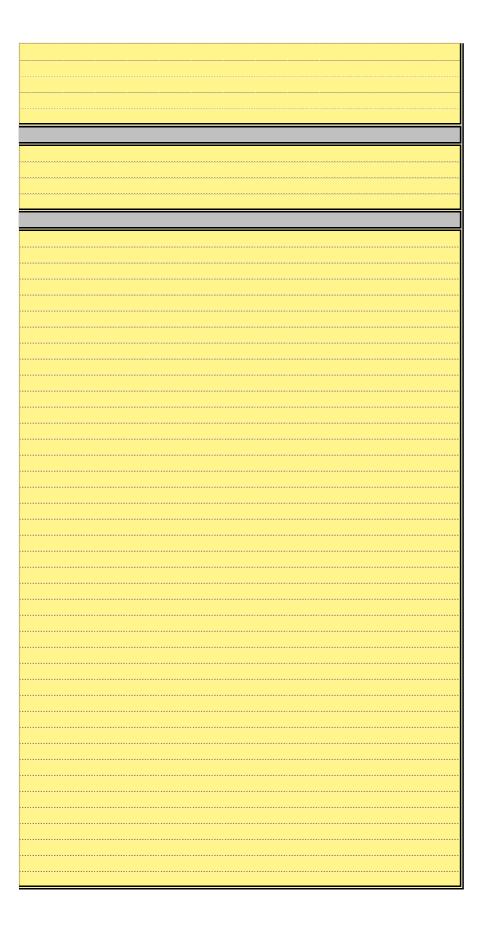
Laboratory:	
File Name	Description of Purpose
Uncertainty-Template-Apr2008.xls	
Control Chart Template.xls PMAP	
3-1Weigh_16Apr08.xls	
air91co24-2.xls	
Lab Wizard 1.0	
Masscode.DOS	
IR5672-Equations-v1-00-1Mar05.xls	
GravCal_16Apr08-2.xls	



Software Inventory and Status		
Used for Procedure	Authorized Users	Program Source
	Laboratory Operations	
		NIST
		NIST
	Mass III	1
Whee	lload Weigher/Weight Carts	
	Mass II	NUOT
		NIST
		NIST
	Mass I	
	IVIASS I	NIST
		NIST
		NIST
	Gravimetric Volume I	
		NIST
	Volume Transfer II	
Volume Transfer LPG/SVP		
	Length	
	Temperature	

	Time and Frequency	
Other M	leasurement Parameter - TBD	

Validation File Name/Location
Not validated by NIST. Local modifications must be validated too.
Not validated by NIST.
Not validated by NIST.
Validation Tab/Worksheet in the File. Form A needed.
Compiled/provided by NIST. Data sets used on site. Compiled/provided by NIST. Data sets used on site.
Compiled/provided by NIST. Data sets used on site.
Not validated by NIST.



Technical Assessment

This form is completed for each software file used in the laboratory. The form may be added as ϵ file/workbook or may be maintained in a separate electronic/paper file/location in the laboratory.

Codes	Assessment
	Spreadsheet is clear and makes sense
	There are instructions for use
	Instructions and data input appear on the visible portion of the first wo
	Data-entry fields are labeled and color coded (it is recommended to av
A. Software Inspection	
ect	The Standard Operating Procedure (SOP) used is clearly specified
dsu	The number of digits to be rounded to is specified
_ 	The user is warned/notified whenever data-entry fields are left blank
Na	Data-entry fields are "blank" when opened, preventing loss of old data
) off	old data is not used with the current calculations
ĕ	The software opens at the right location within the file
`	Unused fields/cells are locked
	Rows/columns that the operator need not see are hidden
	Unused sheets are removed
	Worksheets are named appropriately
<u> </u>	The correct SOP is used
atic atic	The formulae and methods chosen from that SOP are specified
B. Mathematical Specification	Sources and references for formulae are specified
ath pec	The chosen SOP, its methods, and its formulae, are appropriate to the
Σσ	precision/uncertainty
0.	The formulae in the fields exactly match the SOP
iew e	Repeated calculations appropriately reference the correct cells
C. Code review	Calculations, when tested using standard data or reference test data,
	Rounding is done at the appropriate locations in the file
	Calculations are stable as determined by an evaluation that uses large
cal	differences
lumerical tability	Fields, therefore their content, are categorized as "Number" and not "C
Nun Stab	appropriate, and vice versa
2.8	"Number" cells are locked to a limited number of decimal places; this I
	the values being used
+	Each macro used is functional
Component Testing	Each command/button is functional
Compon	Combinations of interdependent macros are functional
Tes	Plotted graphs are accurate
— щ	Worksheets/reports print properly, if needed to
	Conditional (color and non-color) formatting is functional
<u> </u>	Look-up tables and lists match the latest calibration report.
ımerica	Uncertainties match the latest Scope
	Values that reference another workbook or spreadsheet are dated

F. Nu Refe	When a master list's date is updated, the file references (A) an old val value, (C) displays zero or (D) an error message, as desired by the us
G. Embedded Data Evaluation	Embedded data (conversion factors, reference values, etc) is correct The evaluation of the embedded data is dated and documented
H. Back- to-Back Testing	Newer spreadsheets and older spreadsheets agree down to the level calculations; this evaluation is dated and documented
I. Analysis With Out Computer Assistance	Hand calculations agree with those generated by the spreadsheet, or differences are significantly smaller than the reported uncertainty
J. Security	Equation and calculation cells are protected against inadvertent editing Cells are locked in place; they cannot be moved/dragged Confidentiality of passwords is appropriate Files are backed up automatically Additional back-up is available at alternate facilities Files on network drives cannot be accidentally deleted

a tab/worsheet to a

	Pass/Fail	Evidence
rksheet		
void red and green)		
and ensuring that		
-		
Novel of		
; level of		
ahaaaaaaaiata		
show appropriate		
e numbers and small		
2 1"		
General" when		
imit is appropriate to		

ue, (B) a default ser			
of intermediate			
if they disagree, the			
9			

Cells P69 th

Pass Fail N/A

rough P72 are necessary for the drop-down menu in cells J8 through J60