Tip of the Week

October 11, 2004

Adding Extra Rows to the Isokinetic Field Data Sheets

Occasionally, you may find that we conduct sampling runs where there are more data points than fit in our basic isokinetic data entry sheet. The current sheet, as posted on the Source Intranet Site (Isokinetic-1_v10-2004a.xls), has space for 52 data points in rows 18 through 69. This is likely enough room for most testing scenarios; however, there are always exceptions. (e.g., Project 9571, Hydro Aluminum North America, where several sources had test runs requiring 11 pages of data sheets, 260 minute runs with data recorded at 2 minute intervals.)

Simply inserting rows and copying cells into the newly inserted rows will cause several errors in the calculated cells. To avoid this, follow a few simple steps before beginning data entry:

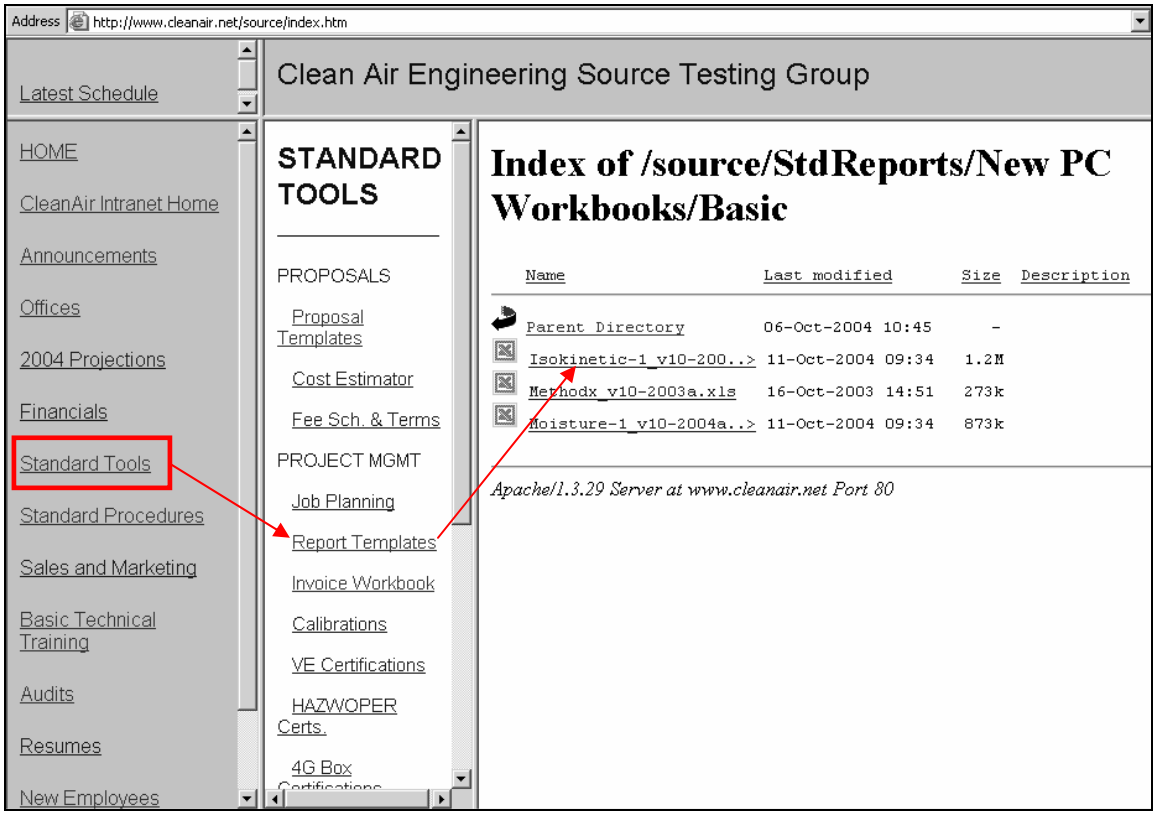
1. Be sure to use the most recent version of the data entry sheet, currently Isokinetic-1_v10-2004a.xls.
2. Determined how many rows you need to add; click on the Run 1 sheet and scroll down to row 18.
3. Move the cursor to the left side of the sheet over the row numbers. You will see that it turns into a right-pointing arrow. Click and hold as you move down the sheet until you have highlighted the number of rows you want to add. i.e. If you need ten additional rows, highlight rows 18 though 27 (a counter next to the cursor will tell you how many rows you have selected).
4. With the rows highlighted, select copy. (You can go to the main menu and select Edit then drop down to Copy; you can use Ctrl+C; you can right click and select Copy, or you can click the Copy icon.)
5. Scroll down to the little, short row at the bottom of the data entry area. On the most recent sheet, it is row 70. It is very short, you almost don't see it.
6. Again, move the cursor to the left side of the sheet over the row number and click to highlight row 70.
7. Right click and select 'Insert Copied Cells'. Viola, you now have 62 data entry rows, all with the correct formulae in them.

Hint No. 1: If you know that all three or four runs need extra data entry rows, you can use the group edit function to change all data entry sheets at the same time.

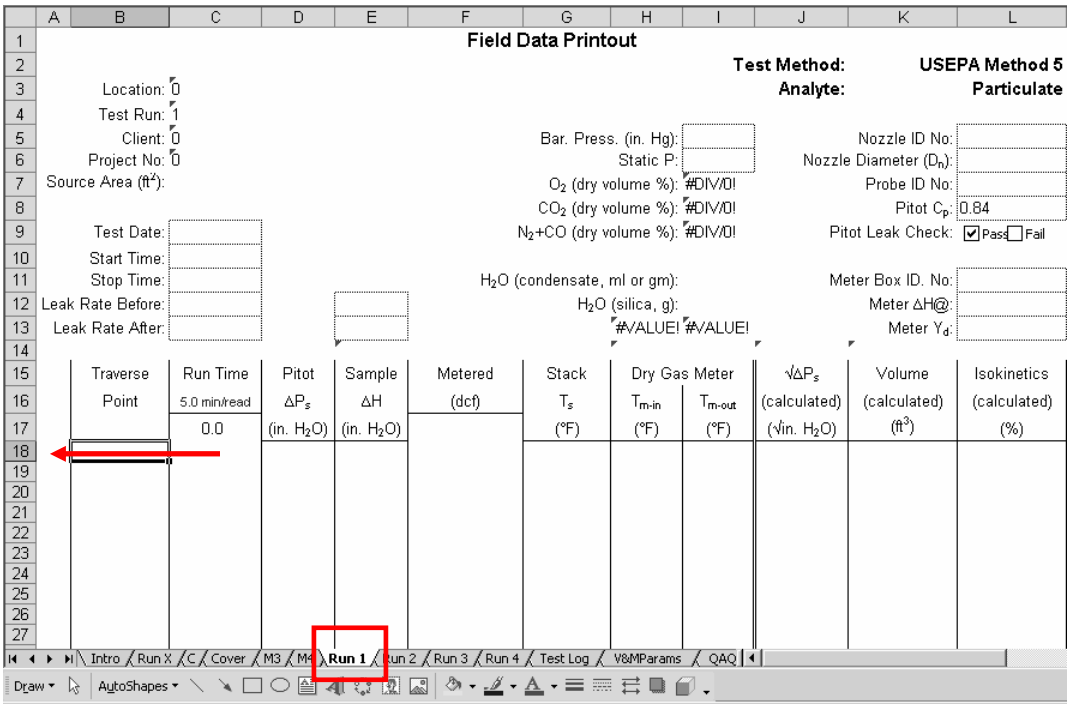
1-1. Click on the Run 1 tab.
1-2. While holding down the shift key, click on the Run 4 tab. (all four run sheets will be highlighted.)
1-3. Follow the steps outlined above. Remember, any and all changes you make on the current sheet will be made on all highlighted sheets.
1-4. When you are through adding rows, remember to undo the group edit. (Click on any un-highlighted sheet.)

Hint No. 2: It doesn't matter what rows you copy. If you need to add 15 rows, highlight and copy any group of 15 consecutive rows between rows 18 and 69. You must, however, insert the rows in that last, short row. (If you have already added 10 rows, that row will be row 80.

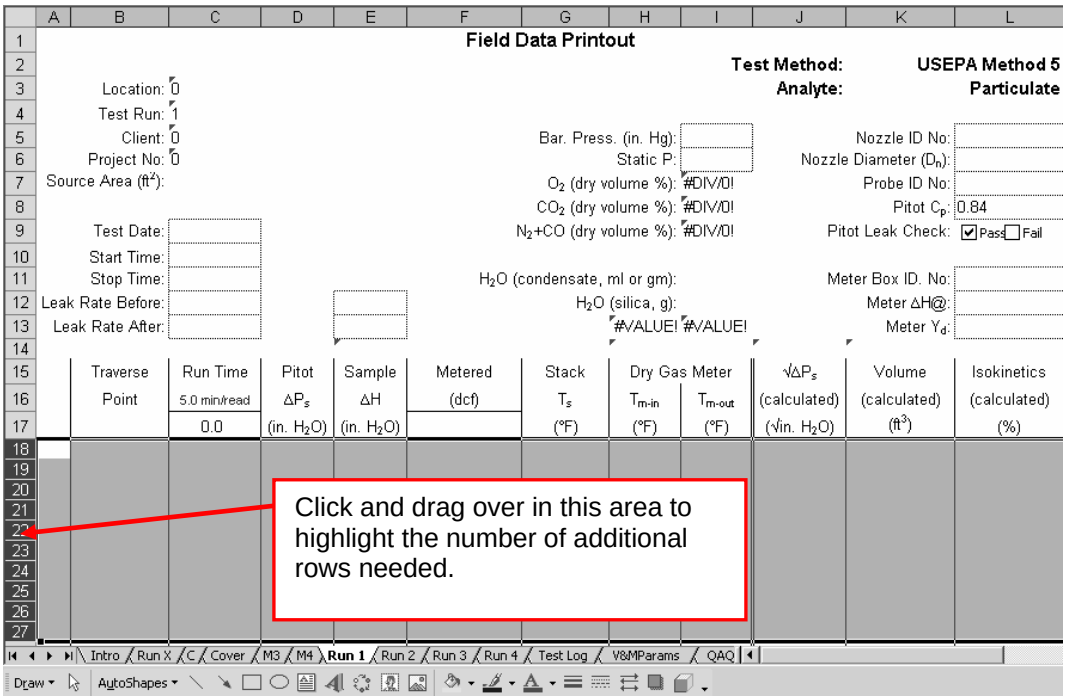
Step 1


Address http://www.cleanair.net/source/index.htm
Latest Schedule
Clean Air Engineering Source Testing Group
HOME
CleanAir Intranet Home
Announcements
Offices
2004 Projections
Financials
Standard Tools
Standard Procedures
Sales and Marketing
Basic Technical Training
Audits
Resumes
New Employees
STANDARD TOOLS
PROPOSALS
Proposal Templates
Cost Estimator
Fee Sch. & Terms
PROJECT MGMT
Job Planning
Report Templates
Invoice Workbook
Calibrations
VE Certifications
HAZWOPER Certs.
4G Box
Index of /source/StdReports/New PC Workbooks/Basic
Name
Last modified
Size
Description
Parent Directory 06-Oct-2004 10:45 -
Isokinetic-1_v10-200..> 11-Oct-2004 09:34 1.2M
Methodx_v10-2003a.xls 16-Oct-2003 14:51 273k
Moisture-1_v10-2004a..> 11-Oct-2004 09:34 873k
Apache/1.3.29 Server at www.cleanair.net Port 80

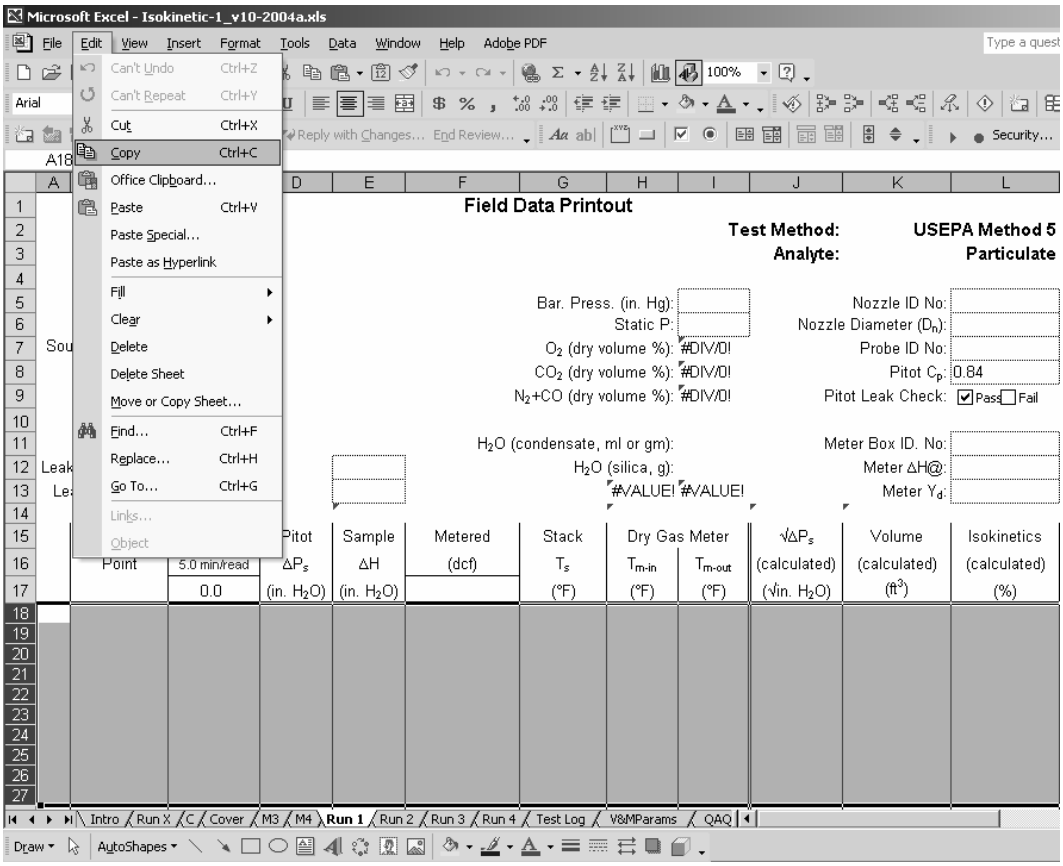
Step 2


Field Data Printout
Test Method: USEPA Method 5
Analyte: Particulate
Location: 0
Test Run: 1
Client: 0
Project No: 0
Source Area (ft²):
Test Date:
Start Time:
Stop Time:
Leak Rate Before:
Leak Rate After:
Bar. Press. (in. Hg):
Static P:
O₂ (dry volume %): #DIV/0!
CO₂ (dry volume %): #DIV/0!
N₂+CO (dry volume %): #DIV/0!
H₂O (condensate, ml or gm):
H₂O (silica, g):
#VALUE! #VALUE!
Nozzle ID No:
Nozzle Diameter (Dn):
Probe ID No:
Pitot Cp: 0.84
Pitot Leak Check: Pass Fail
Meter Box ID. No:
Meter ΔH@:
Meter Yd:
Traverse Point
Run Time 5.0 min/read
Pitot ΔPs (in. H₂O)
Sample ΔH (in. H₂O)
Metered (dcf)
Stack Ts (°F)
Dry Gas Meter Tm-in (°F)
Tm-out (°F)
√ΔPs (calculated) (√in. H₂O)
Volume (calculated) (ft³)
Isokinetics (calculated) (%)
0.0
Intro
Run X
C
Cover
M3
M4
Run 1
Run 2
Run 3
Run 4
Test Log
V&MParams
QAQ
Draw
AutoShapes

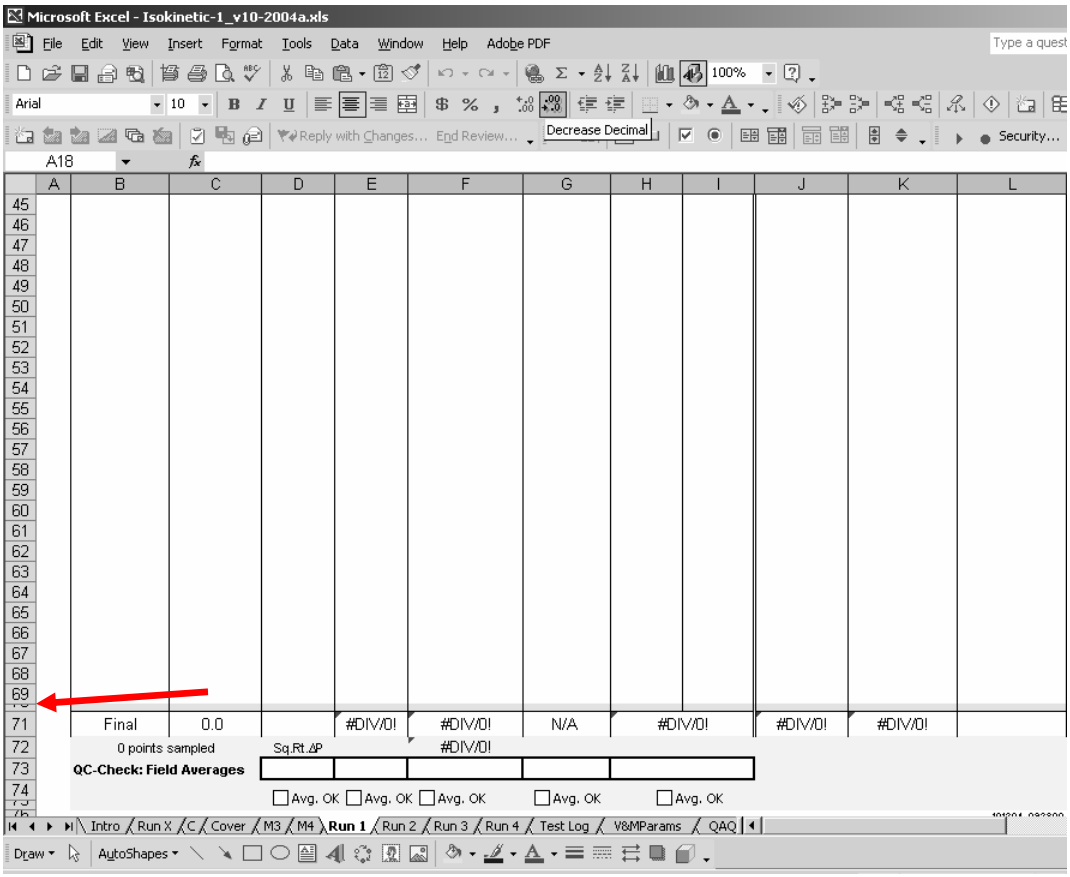
Step 3


Field Data Printout
Test Method: USEPA Method 5
Analyte: Particulate
Location: 0
Test Run: 1
Client: 0
Project No: 0
Source Area (ft²):
Test Date:
Start Time:
Stop Time:
Leak Rate Before:
Leak Rate After:
Bar. Press. (in. Hg):
Static P:
O2 (dry volume %): #DIV/0!
CO2 (dry volume %): #DIV/0!
N2+CO (dry volume %): #DIV/0!
H2O (condensate, ml or gm):
H2O (silica, g):
#VALUE! #VALUE!
Nozzle ID No:
Nozzle Diameter (Dn):
Probe ID No:
Pitot Cp: 0.84
Pitot Leak Check: Pass Fail
Meter Box ID. No:
Meter ΔH@:
Meter Yd:
Traverse Point
Run Time 5.0 min/read
Pitot ΔPs (in. H2O)
Sample ΔH (in. H2O)
Metered (dcf)
Stack Ts (°F)
Dry Gas Meter Tm-in (°F)
Tm-out (°F)
√ΔPs (calculated) (√in. H2O)
Volume (calculated) (ft³)
Isokinetics (calculated) (%)
0.0
Click and drag over in this area to highlight the number of additional rows needed.
Intro
Run X
C
Cover
M3
M4
Run 1
Run 2
Run 3
Run 4
Test Log
V&MParams
QAQ
Draw
AutoShapes

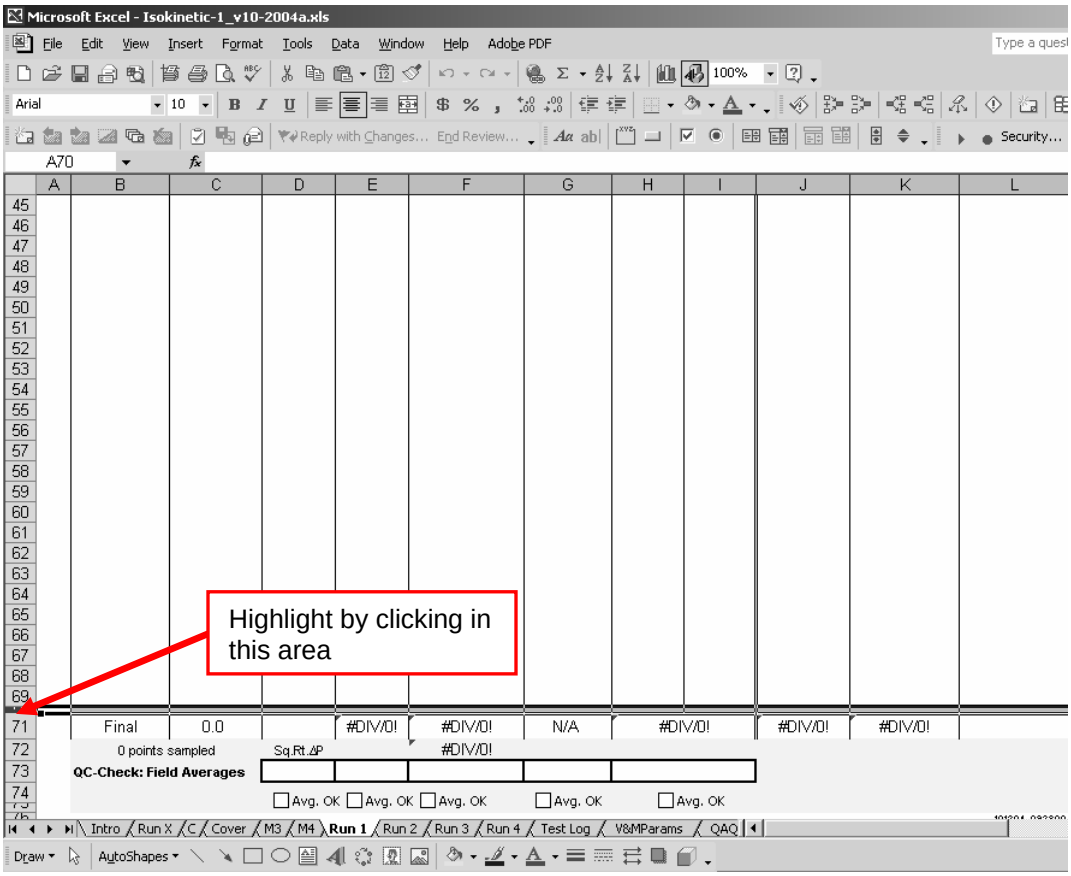
Step 4


Microsoft Excel - Isokinetic-1_v10-2004a.xls
File Edit View Insert Format Tools Data Window Help Adobe PDF
Can't Undo Ctrl+Z
Can't Repeat Ctrl+Y
Cut Ctrl+X
Copy Ctrl+C
Office Clipboard...
Paste Ctrl+V
Paste Special...
Paste as Hyperlink
Fill
Clear
Delete
Delete Sheet
Move or Copy Sheet...
Find... Ctrl+F
Replace... Ctrl+H
Go To... Ctrl+G
Links...
Object
Field Data Printout
Test Method: USEPA Method 5
Analyte: Particulate
Bar. Press. (in. Hg):
Static P:
O2 (dry volume %): #DIV/0!
CO2 (dry volume %): #DIV/0!
N2+CO (dry volume %): #DIV/0!
Nozzle ID No:
Nozzle Diameter (Dn):
Probe ID No:
Pitot Cp: 0.84
Pitot Leak Check: Pass Fail
H2O (condensate, ml or gm):
H2O (silica, g):
#VALUE! #VALUE!
Meter Box ID. No:
Meter ΔH@:
Meter Yd:
Point
5.0 min/read
0.0
Pitot ΔPs (in. H2O)
Sample ΔH (in. H2O)
Metered (dcf)
Stack Ts (°F)
Dry Gas Meter Tm-in (°F)
Dry Gas Meter Tm-out (°F)
√ΔPs (calculated) (√in. H2O)
Volume (calculated) (ft3)
Isokinetics (calculated) (%)
Intro Run X C Cover M3 M4 Run 1 Run 2 Run 3 Run 4 Test Log V&MParams QAQ
Draw AutoShapes

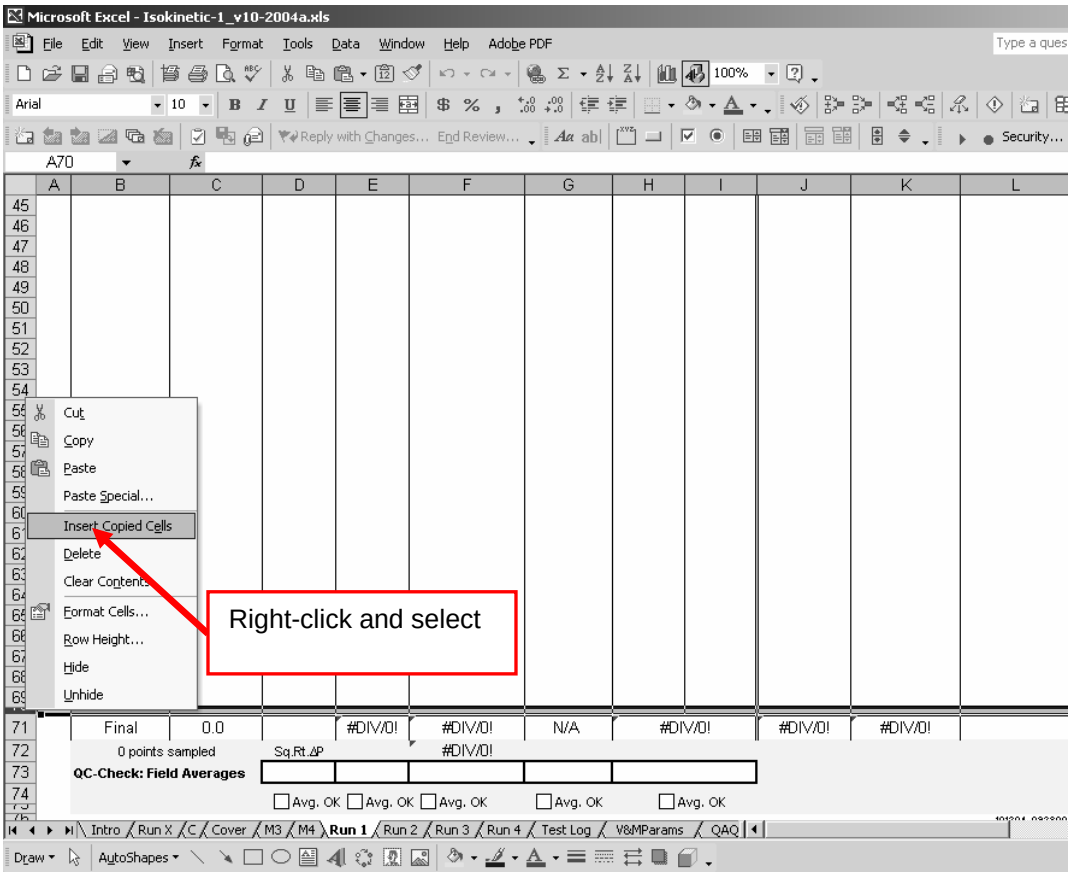
Step 5


Microsoft Excel - Isokinetic-1_v10-2004a.xls
Decrease Decimal
A18
Final
0.0
#DIV/0!
N/A
0 points sampled
Sq.Rt.ΔP
QC-Check: Field Averages
Avg. OK
Intro
Run X
C
Cover
M3
M4
Run 1
Run 2
Run 3
Run 4
Test Log
V&MParams
QAQ

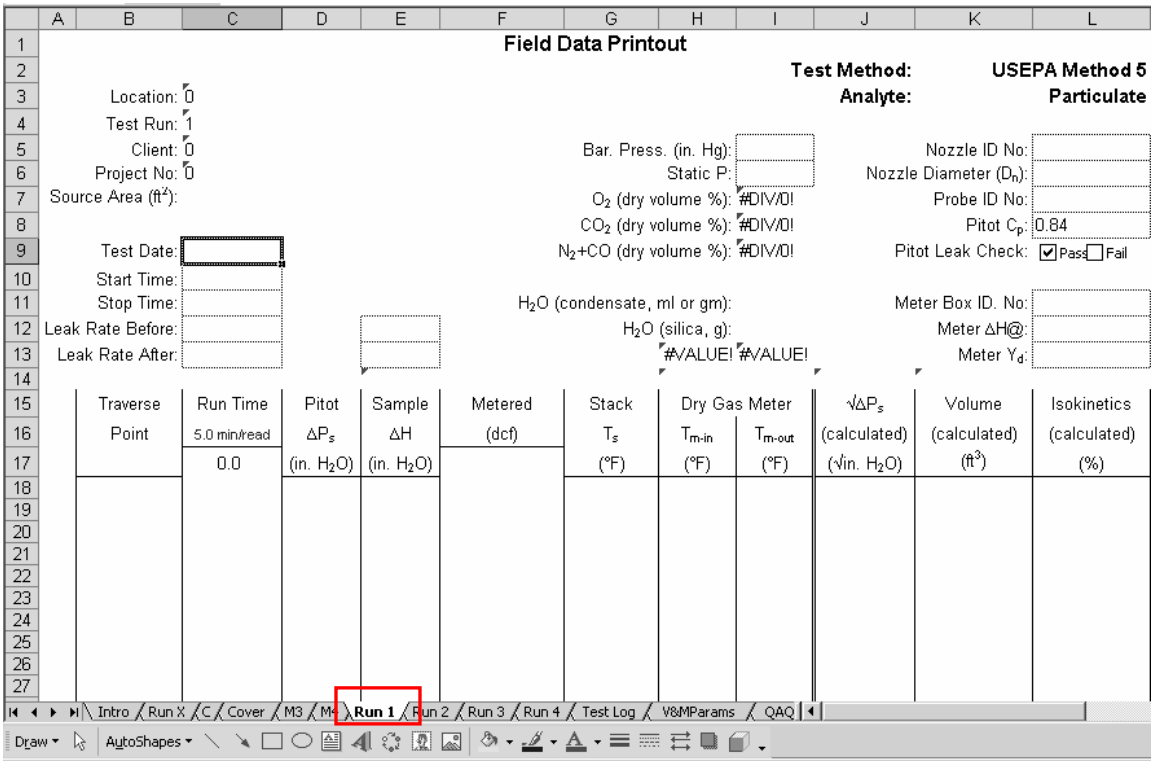
Step 6


Microsoft Excel - Isokinetic-1_v10-2004a.xls
Highlight by clicking in this area
Final
0.0
#DIV/0!
N/A
0 points sampled
Sq.Rt.ΔP
QC-Check: Field Averages
Avg. OK
Intro
Run X
C
Cover
M3
M4
Run 1
Run 2
Run 3
Run 4
Test Log
V&MParams
QAQ

Step 7


Microsoft Excel - Isokinetic-1_v10-2004a.xls
Cut
Copy
Paste
Paste Special...
Insert Copied Cells
Delete
Clear Contents
Format Cells...
Row Height...
Hide
Unhide
Right-click and select
Final
0.0
#DIV/0!
N/A
0 points sampled
Sq.Rt.ΔP
QC-Check: Field Averages
Avg. OK

Hint No. 1, Step 1



Field Data Printout

Test Method: **USEPA Method 5**
Analyte: **Particulate**

Location: 0
Test Run: 1
Client: 0
Project No: 0
Source Area (ft^2):

Test Date:
Start Time:
Stop Time:
Leak Rate Before:
Leak Rate After:

Bar. Press. (in. Hg):
Static P:
O_2 (dry volume %): #DIV/0!
CO_2 (dry volume %): #DIV/0!
N_2+CO (dry volume %): #DIV/0!

H_2O (condensate, ml or gm):
H_2O (silica, g): #VALUE! #VALUE!

Nozzle ID No:
Nozzle Diameter (D_n):
Probe ID No:
Pitot C_p: 0.84
Pitot Leak Check: ☑ Pass ☐ Fail

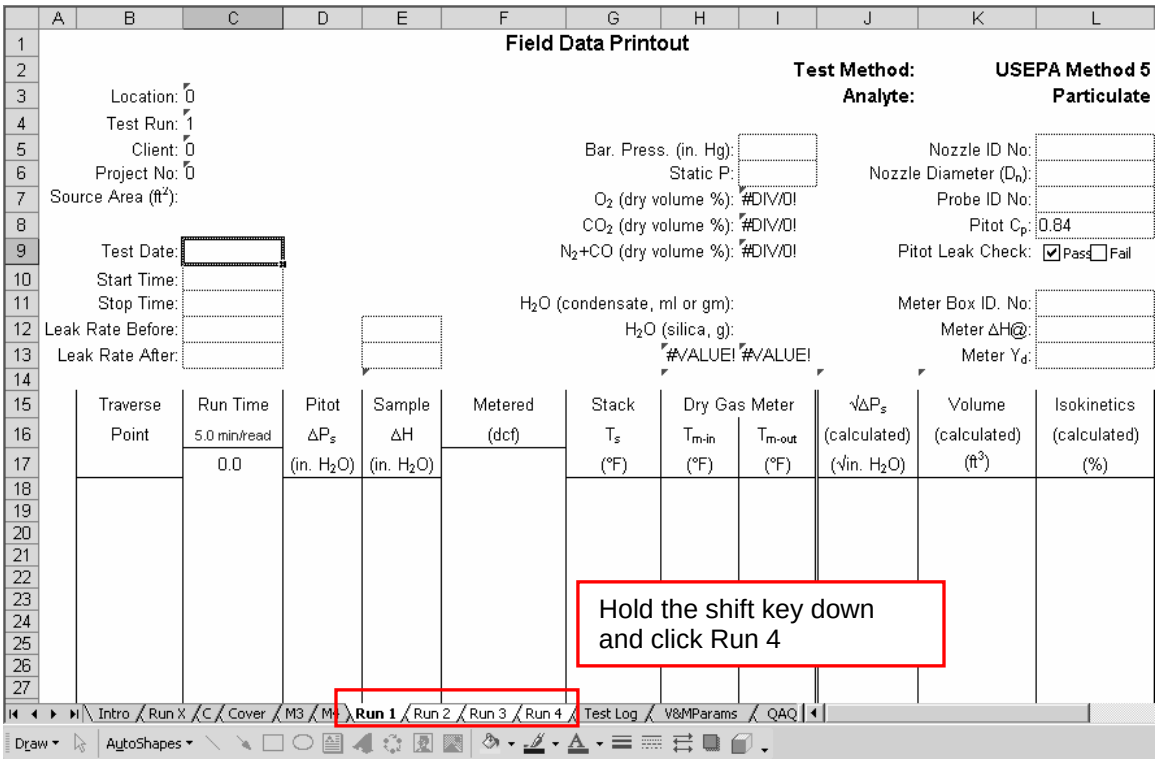
Meter Box ID. No:
Meter ΔH@:
Meter Y_d:

Traverse Point	Run Time 5.0 min/read 0.0	Pitot ΔP_s (in. H_2O)	Sample ΔH (in. H_2O)	Metered (dcf)	Stack T_s (°F)	Dry Gas Meter $T_{m\text{-}in}$ (°F)	Dry Gas Meter $T_{m\text{-}out}$ (°F)	$\sqrt{\Delta P_s}$ (calculated) ($\sqrt{}$in. H_2O)	Volume (calculated) (ft^3)	Isokinetics (calculated) (%)

Intro | Run X | C | Cover | M3 | M4 | **Run 1** | Run 2 | Run 3 | Run 4 | Test Log | V&MParams | QAQ

Draw | AutoShapes

Hint 1, Step 2


Field Data Printout
Test Method: USEPA Method 5
Analyte: Particulate
Location: 0
Test Run: 1
Client: 0
Project No: 0
Source Area (ft²):
Test Date:
Start Time:
Stop Time:
Leak Rate Before:
Leak Rate After:
Bar. Press. (in. Hg):
Static P:
O2 (dry volume %): #DIV/0!
CO2 (dry volume %): #DIV/0!
N2+CO (dry volume %): #DIV/0!
H2O (condensate, ml or gm):
H2O (silica, g):
#VALUE! #VALUE!
Nozzle ID No:
Nozzle Diameter (Dn):
Probe ID No:
Pitot Cp: 0.84
Pitot Leak Check: Pass Fail
Meter Box ID. No:
Meter ΔH@:
Meter Yd:
Traverse Point
Run Time 5.0 min/read 0.0
Pitot ΔPs (in. H2O)
Sample ΔH (in. H2O)
Metered (dcf)
Stack Ts (°F)
Dry Gas Meter Tm-in (°F) Tm-out (°F)
√ΔPs (calculated) (√in. H2O)
Volume (calculated) (ft³)
Isokinetics (calculated) (%)
Hold the shift key down and click Run 4
Intro Run X C Cover M3 M4 Run 1 Run 2 Run 3 Run 4 Test Log V&MParams QAQ
Draw AutoShapes