

ATTACHMENT E
EQUIPMENT CALIBRATION RECORDS

Partisol® – “HUB”, Model 2000

Final Test Record
PM – 10 Air Sampler

U.S.EPA reference designated PM-10 method (RFPS-0694-098) in accordance with 40 CFR Part 53

Serial Number	2000 B 20932 0802	
Line Voltage:	<input checked="" type="checkbox"/> 115Vac 60Hz	or <input type="checkbox"/> 230Vac 50Hz

This instrument has been fully calibrated and tested by Rupprecht and Patashnick Co., Inc. in accordance with American National Standards Institute (ANSI) Z540 for calibration. The equipment calibration is traceable to the National Institute of Standards and Technology (NIST) in Washington D.C., USA. The manufacturing, test and calibration of this instrument were conducted in accordance with R&P's certified ISO9001 program for quality. This Final Test Record is a summary of the instrument calibrations and contains important information critical to its performance. This record also serves as confirmation that all the required Manufacturing and Quality Control inspections, including U.S.EPA requirements in CFR 40 Parts 50, 53 and 58 pertaining to this instrument, comply with Rupprecht & Patashnick Co. Inc.'s specifications.

Process Checks

- | | | |
|------------------------------|------------------------------|------------------------|
| Assembly inspection | Plumbing leak and flow test | Evaluate burn-in data |
| Latest software revision | Voltage calibrations | Full calibration audit |
| Conforms to CE & ETL testing | Calibrate software constants | Leak test audit |
| Passes all function tests | Run required burn-in | Reset user defaults |

Instrument Calibration Constant Values:

	Offset	Span
A/I:	0.0031	1.0001
AmbT:		0.9999
Pres:		1.0055
Flow:	0.0087	1.0370

Instrument EPROM Software Version: 1.503

Final Test Sign off

All Process Checks listed above have been successfully completed.

Signature David MacCarty (Final Test)

Date 2-19-08

Q.A. Approval to Ship

Signature James P. Johnson (QA or Product Leader)

Date 2/21/08

Final Test Record PM - 10 Air Sampler

U.S. EPA reference designated PM-10 method (RFPS-0694-098) in accordance with 40 CFR Part 53

Serial Number	2000 B 20933 0802
Line Voltage:	<input checked="" type="checkbox"/> 115Vac 60Hz or <input type="checkbox"/> 230Vac 50Hz

This instrument has been fully calibrated and tested by Rupprecht and Patashnick Co., Inc. in accordance with American National Standards Institute (ANSI) Z540 for calibration. The equipment calibration is traceable to the National Institute of Standards and Technology (NIST) in Washington D.C., USA. The manufacturing, test and calibration of this instrument were conducted in accordance with R&P's certified ISO9001 program for quality. This Final Test Record is a summary of the instrument calibrations and contains important information critical to its performance. This record also serves as confirmation that all the required Manufacturing and Quality Control inspections, including U.S.EPA requirements in CFR 40 Parts 50, 53 and 58 pertaining to this instrument, comply with Rupprecht & Patashnick Co. Inc.'s specifications.

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| Conforms to CE & ETL testing | Calibrate software constants | Leak test audit |
| Passes all function tests | Run required burn-in | Reset user defaults |

Instrument Calibration Constant Values:

	Offset	Span
A/I:	.0008	.9990
AmbT:		1.0015
Pres:		1.0056
Flow:	.0070	.9990

Instrument EPROM Software Version: 1.503

Final Test Sign off

All Process Checks listed above have been successfully completed.

Signature David MacCubley (Final Test)

Date 2-19-08

Q.A. Approval to Ship

Signature Judith Zager (QA or Product Leader)

Date 2-21-08

Partisol® - "HUB", Model 2000

Final Test Record PM - 10 Air Sampler

U.S.EPA reference designated PM-10 method (RFPS-0694-098) in accordance with 40 CFR Part 53

Serial Number	2000 B 20934 0802	
Line Voltage:	<input checked="" type="checkbox"/> 115Vac 60Hz	or <input type="checkbox"/> 230Vac 50Hz

This instrument has been fully calibrated and tested by Rupprecht and Patashnick Co., Inc. in accordance with American National Standards Institute (ANSI) Z540 for calibration. The equipment calibration is traceable to the National Institute of Standards and Technology (NIST) in Washington D.C., USA. The manufacturing, test and calibration of this instrument were conducted in accordance with R&P's certified ISO9001 program for quality. This Final Test Record is a summary of the instrument calibrations and contains important information critical to its performance. This record also serves as confirmation that all the required Manufacturing and Quality Control inspections, including U.S.EPA requirements in CFR 40 Parts 50, 53 and 58 pertaining to this instrument, comply with Rupprecht & Patashnick Co. Inc.'s specifications.

Process Checks

- | | | |
|------------------------------|------------------------------|------------------------|
| Assembly inspection | Plumbing leak and flow test | Evaluate burn-in data |
| Latest software revision | Voltage calibrations | Full calibration audit |
| Conforms to CE & ETL testing | Calibrate software constants | Leak test audit |
| Passes all function tests | Run required burn-in | Reset user defaults |

Instrument Calibration Constant Values:

	Offset	Span
AI:	0.0008	0.9998
AmbT:		0.9985
Pres:		1.0050
Flow:	0.0074	1.0075

Instrument EPROM Software Version: 1.503

Final Test Sign off

All Process Checks listed above have been successfully completed.

Signature David MacBryde (Final Test)

Date 2-19-08

Q.A. Approval to Ship

Signature James P. Johnson (QA or Product Leader)

Date 2/21/08

Partisol 2000 Sampler Audit

Background Data

Audit Data

Technician: John Lancaster
 Date: 6-10-08
 Station Name: 20933

Flow Kit

Make/Model: Stromline Pro/Hubel Model M
 Serial Number: CO80203

Partisol Sampler Data

Make/Model: Partisol 2000 Air Sampler TSP
 Serial Number: 20003 20933 0802
 Software Version: 1.503

Instrument Data Screen

Temperature (°C): 34.5
 Pressure (ATM): 1.003
 Set Flow (L/min): 16.7

Partisol Parameters Before Audit

	Offset	Span
A/I	0.0008	0.9990
Temperature		1.0015
Pressure		1.0056
Flow	0.0070	0.9990

Conversion from Hg to ATM

ATM = (in Hg) x 0.0334207

Conversion from mm Hg to ATM

ATM = (mm Hg) x 0.001316

Audit Data

Temperature & Pressure Audit

Measured Temp. 35.6 (°C) Temp. Difference °C +1.1 Limit +/- 2°C
 Measured Press. 759.3 (mm Hg) Press. Difference ATM -0.0051 Limit +/- 0.02 ATM
 Measured Press. 0.9979 (ATM)

Leak Check

Unit	Flow Controller Valve Closed (V1)	VL = 1/2 x V1	Pump Valve Closed After 10 Seconds (V2)	Leakage Calculation After 10 Seconds (V2 > VL)	Pass/Fail
Hub	-24	-12	-23	Y	P

Flow Audit

Audit Screen: Indicated Flow (L/min) 16.6 % Difference of Ind. & Meas. Flows (+/- 7%) +1.39%
 Flow Meter: Measured Vol. Flow (L/min) 16.83 +/- Difference of Ind. & Set Flows (L/min) +0.23

Other Inspections

Item:	Condition	Maintenance/Repairs
Rubber Seals in Hub	<u>Serviceable</u>	
TSP Inlet		<u>Dipped with inlet</u>
Temp Sensor		
Large Inline Filter		
Air Screens Under Rain Hoods		
Fan Screens		

Comments: Quarterly audit

Signature: John Lancaster

Partisol 2000 Sampler Audit

Background Data

Audit Data

Technician: John Lancaster
 Date: 6-10-08
 Station Name: 20932

Flow Kit

Make/Model: Streamline Po/Albed Red 17
 Serial Number: 080203

Partisol Sampler Data

Make/Model: Partisol 2000 Air Sampler TSP
 Serial Number: 20003 20932 08020
 Software Version: 1.503

Instrument Data Screen

Temperature (°C): 34.9
 Pressure (ATM): 1.001
 Set Flow (L/min): Last 16.7

Partisol Parameters Before Audit

	Offset	Span
AVI	-0.0031	1.0001
Temperature		0.9999
Pressure		1.0055
Flow	-0.0087	1.0370

Conversion from Hg to ATM

ATM = (in Hg) x 0.0334207

Conversion from mm Hg to ATM

ATM = (mm Hg) x 0.001316

Audit Data

Temperature & Pressure Audit

Measured Temp.	<u>35.0</u> (°C)	Temp. Difference °C	<u>+0.1</u>	Limit +/- 2°C
Measured Press.	<u>752.1</u> (mm Hg)	Press. Difference ATM	<u>-0.0047</u>	Limit +/- 0.02 ATM
Measured Press.	<u>0.9963</u> (ATM)			

Leak Check

Unit	Flow Controller Valve Closed (V1)	VL = 1/2 x V1	Pump Valve Closed After 10 Seconds (V2)	Leakage Calculation After 10 Seconds (V2 > V1)	Pass/Fail
Hub	<u>-26</u>	<u>-13</u>	<u>-25</u>	<u>Y</u>	<u>P</u>

Flow Audit

Audit Screen: Indicated Flow (L/min)	<u>16.6</u>	% Difference of Ind. & Meas. Flows (+/- 7%)	<u>+5.12%</u>
Flow Meter: Measured Vol. Flow (L/min)	<u>15.75</u>	+/- Difference of Ind. & Set Flows (L/min)	<u>-0.85</u>

Other Inspections

Item:	Condition	Maintenance/Repairs
Rubber Seals in Hub	<u>Serviceable</u>	
TSP Inlet		<u>Wiped off inlet</u>
Temp Sensor		
Large Inline Filter		
Air Screens Under Rain Hoods		
Fan Screens		

Comments: Quarterly audit.

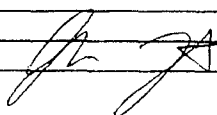
Signature: John Lancaster

Partisol 2000 Sampler Audit

Background Data																
Audit Data Technician: <u>John Lancaster</u> Date: <u>6-6-07</u> Station Name: <u>28936</u>	Flow Kit Make/Model: <u>Streamline Pro Multival Model 17</u> Serial Number: <u>C080203</u>															
Partisol Sampler Data Make/Model: <u>Partisol 2000 Air Sampler TSP</u> Serial Number: <u>2000B 20936 0802</u> Software Version: <u>1.503</u>	Instrument Data Screen Temperature (C): <u>25.5 26.22</u> Pressure (ATM): <u>1.014</u> Set Flow (L/min): <u>16.7</u>															
Partisol Parameters Before Audit																
<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th style="text-align: center;">Offset</th> <th style="text-align: center;">Span</th> </tr> </thead> <tbody> <tr> <td>A/I</td> <td style="text-align: center;"><u>0.0005</u></td> <td style="text-align: center;"><u>0.9987</u></td> </tr> <tr> <td>Temperature</td> <td style="text-align: center;">0.0005</td> <td style="text-align: center;"><u>1.0013</u></td> </tr> <tr> <td>Pressure</td> <td style="text-align: center;">0.0005</td> <td style="text-align: center;"><u>1.0099</u></td> </tr> <tr> <td>Flow</td> <td style="text-align: center;"><u>-0.0109</u></td> <td style="text-align: center;"><u>1.0088</u></td> </tr> </tbody> </table>		Offset	Span	A/I	<u>0.0005</u>	<u>0.9987</u>	Temperature	0.0005	<u>1.0013</u>	Pressure	0.0005	<u>1.0099</u>	Flow	<u>-0.0109</u>	<u>1.0088</u>	
	Offset	Span														
A/I	<u>0.0005</u>	<u>0.9987</u>														
Temperature	0.0005	<u>1.0013</u>														
Pressure	0.0005	<u>1.0099</u>														
Flow	<u>-0.0109</u>	<u>1.0088</u>														
Conversion from Hg to ATM ATM = (in Hg) x 0.0334207	Conversion from mm Hg to ATM ATM = (mm Hg) x 0.001316															

Audit Data					
Temperature & Pressure Audit					
Measured Temp.	<u>26.5</u> (°C)	Temp. Difference °C	<u>+0.5</u>	Limit +/- 2°C	
Measured Press.	<u>764.7</u> (mm Hg)	Press. Difference ATM	<u>-0.00265</u>	Limit +/- 0.02 ATM	
Measured Press.	<u>1.00635</u> (ATM)				
Leak Check					
Unit	Flow Controller Valve Closed (V1)	VL = 1/2 x V1	Pump Valve Closed After 10 Seconds (V2)	Leakage Calculation After 10 Seconds (V2 > VL)	Pass/Fail
Hub	<u>-25</u>	<u>-12.5</u>	<u>-25</u>	<u>Y</u>	<u>P</u>
Flow Audit					
Audit Screen: Indicated Flow (L/min)	<u>16.7</u>	% Difference of Ind. & Meas. Flows (+/- 7%)	<u>+0.8%</u>		
Flow Meter: Measured Vol. Flow (L/min)	<u>16.83</u>	+/- Difference of Ind. & Set Flows (L/min)	<u>-0.13</u>		
Other Inspections					
Item:	Condition	Maintenance/Repairs			
Rubber Seals in Hub	<u>New</u>				
PM Inlet	<u>New</u>				
Knockout Jar	<u>MT</u>				
Large Inline Filter	<u>New</u>				
Air Screens Under Rain Hoods	<u>New</u>				
Fan Screens	<u>New</u>				

Comments: Audit done following installation at on roof of Tri-State Liquors, Claymont, DE.

Signature: 

Partisol 2000 Sampler Audit

Background Data

Audit Data

Technician: John Lancaster
 Date: 4-2-08
 Station Name: 20932

Flow Kit

Make/Model: Streamline Pro Multizal Model
 Serial Number: C080203

Partisol Sampler Data

Make/Model: Partisol 2000 Air Sampler TSP
 Serial Number: 2003 209320802
 Software Version: 1.503

Instrument Data Screen

Temperature (C): 10.0
 Pressure (ATM): 1.017
 Set Flow (L/min): 16.7

Partisol Parameters Before Audit

	Offset	Span
A/I	<u>-0.0031</u>	<u>1.0001</u>
Temperature	_____	<u>0.4999</u>
Pressure	_____	<u>1.0055</u>
Flow	<u>-0.0087</u>	<u>1.0370</u>

Conversion from Hg to ATM

ATM = (in Hg) x 0.0334207

Conversion from mm Hg to ATM

ATM = (mm Hg) x 0.001316

Audit Data

Temperature & Pressure Audit

Measured Temp. 10.4 (°C) Temp. Difference °C 0.4 Limit +/- 2°C
 Measured Press. 762.4 (mm Hg) Press. Difference ATM 0.01237 Limit +/- 0.02 ATM
 Measured Press. 1.00463 (ATM)

Leak Check

Unit	Flow Controller Valve Closed (V1)	VL = 1/2 x V1	Pump Valve Closed After 10 Seconds (V2)	Leakage Calculation After 10 Seconds (V2 > V1)	Pass/Fail
Hub	<u>-27</u>	<u>-13.5</u>	<u>-26</u>	<u>Y</u>	<u>P</u>

Flow Audit

Audit Screen: Indicated Flow (L/min) 16.7 % Difference of Ind. & Meas. Flows (+/- 7%) 3.28%
 Flow Meter: Measured Vol. Flow (L/min) 16.32 +/- Difference of Ind. & Set Flows (L/min) 0.38

Other Inspections

Item:	Condition	Maintenance/Repairs
Rubber Seals in Hub	<u>New</u>	_____
PM Inlet	_____	_____
Knockout Jar	_____	_____
Large Inline Filter	_____	_____
Air Screens Under Rain Hoods	_____	_____
Fan Screens	_____	_____

Comments: Audit conducted on installation at monitoring site on roof of
Claymont Community Center, Claymont, DE

Signature: John Lancaster

Partisol 2000 Sampler Audit

Background Data

Audit Data

Technician: John Lancaster
 Date: 3/16/08
 Station Name: 20932

Flow Kit

Make/Model: Streamline Pro Nullized Model 17
 Serial Number: C040203

Partisol Sampler Data

Make/Model: Partisol 2000B ^{AR Sampler TSP} 20932
 Serial Number: 2000B-20932-0402
 Software Version: 1.507

Instrument Data Screen

Temperature (C): 22.2
 Pressure (ATM): 1.007
 Set Flow (L/min): 16.7

Partisol Parameters Before Audit

	Offset	Span
A/I	<u>-0.0031</u>	<u>1.0001</u>
Temperature	<u>X</u>	<u>0.9999</u>
Pressure	<u>X</u>	<u>1.0055</u>
Flow	<u>-0.0087</u>	<u>1.0370</u>

Conversion from Hg to ATM

ATM = (in Hg) x 0.0334207

Conversion from mm Hg to ATM

ATM = (mm Hg) x 0.001316

Audit Data

Temperature & Pressure Audit

Measured Temp. 21.2 (°C) Temp. Difference °C -1.0 Limit +/- 2°C
 Measured Press. 758.2 (mm Hg) Press. Difference ATM 0.0092 Limit +/- 0.02 ATM
 Measured Press. 0.9978 (ATM)

Leak Check

Unit	Flow Controller Valve Closed (V1)	VL = 1/2 x V1	Pump Valve Closed After 10 Seconds (V2)	Leakage Calculation After 10 Seconds (V2 > V1)	Pass/Fail
Hub	<u>-26</u>	<u>-13</u>	<u>-26</u>	<u>0</u>	<u>Pass</u>

Flow Audit

Audit Screen: Indicated Flow (L/min) 16.6 % Difference of Ind. & Meas. Flows (+/- 7%) -2.53%
 Flow Meter: Measured Vol. Flow (L/min) 16.18 +/- Difference of Ind. & Set Flows (L/min) 0.42

Other Inspections

Item:	Condition	Maintenance/Repairs
Rubber Seals in Hub	<u>New</u>	
PM Inlet		
Knockout Jar		
Large Inline Filter		
Air Screens Under Rain Hoods		
Fan Screens		

Comments: Audit conducted after coin cell battery was replaced, and system was reset due to data errors in data storage.

Signature: John W. Lancaster

Partisol 2000 Sampler Audit

Background Data																
Audit Data Technician: <u>John Lancaster</u> Date: <u>3/14/08</u> Station Name: <u>20936</u>	Flow Kit Make/Model: <u>Streamline Per Multival Model 17</u> Serial Number: <u>C080203</u>															
Partisol Sampler Data Make/Model: <u>Partisol 2000 Air Sampler-TSP</u> Serial Number: <u>200013-20936-0802</u> Software Version: <u>1.503</u>	Instrument Data Screen Temperature (C): <u>22.1</u> Pressure (ATM): <u>1.007</u> Set Flow (L/min): <u>16.7</u>															
Partisol Parameters Before Audit																
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Temperature	0.0005	0.9987														
Pressure	0.0005	0.9987														
Flow	-0.0109	1.0088														
Conversion from Hg to ATM ATM = (in Hg) x 0.0334207																
Conversion from mm Hg to ATM ATM = (mm Hg) x 0.001316																

Audit Data					
Temperature & Pressure Audit					
Measured Temp.	<u>21.4</u> (°C)	Temp. Difference °C	<u>-0.7</u>	Limit +/- 2°C	
Measured Press.	<u>759.4</u> (mm Hg)	Press. Difference ATM	<u>0.0076</u>	Limit +/- 0.02 ATM	
Measured Press.	<u>0.9994</u> (ATM)				
Leak Check					
Unit	Flow Controller Valve Closed (V1)	VL = 1/2 x V1	Pump Valve Closed After 10 Seconds (V2)	Leakage Calculation After 10 Seconds (V2 > VL)	Pass/Fail
Hub	-25	-12.5	-25	0	Pass
Flow Audit					
Audit Screen: Indicated Flow (L/min)	<u>16.6</u>	% Difference of Ind. & Meas. Flows (+/- 7%)	<u>+1.19</u>		
Flow Meter: Measured Vol. Flow (L/min)	<u>16.88</u>	+/- Difference of Ind. & Set Flows (L/min)	<u>0.28</u>		
Other Inspections					
Item:	Condition	Maintenance/Repairs			
Rubber Seals in Hub	<u>New</u>				
PM Inlet					
Knockout Jar					
Large Inline Filter					
Air Screens Under Rain Hoods					
Fan Screens					

Comments: Audit conducted after coin cell battery was replaced and system was reset due to data errors in data storage


Signature: John Lancaster

Partisol 2000 Sampler Audit

Background Data																
Audit Data Technician: <u>John Lancaster</u> Date: <u>3/10/08</u> Station Name: <u>20934</u>	Flow Kit Make/Model: <u>Streamline Pro Multitest Model 17</u> Serial Number: <u>COFC 203</u>															
Partisol Sampler Data Make/Model: <u>Partisol 2000 Air Sampler TSP</u> Serial Number: <u>2000B 20934 0802</u> Software Version: <u>1.503</u>	Instrument Data Screen Temperature (C): <u>9.0</u> Pressure (ATM): <u>1.018</u> Set Flow (L/min): <u>16.7</u>															
Partisol Parameters Before Audit																
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	Offset	Span														
AI	<u>0.0208</u>	<u>0.9998</u>														
Temperature	0.0208	0.9998														
Pressure	0.0208	0.9998														
Flow	<u>-0.0074</u>	<u>1.0075</u>														
Conversion from Hg to ATM ATM = (in Hg) x 0.0334207																
Conversion from mm Hg to ATM ATM = (mm Hg) x 0.001316																

Audit Data					
Temperature & Pressure Audit					
Measured Temp.	<u>10.1</u> (°C)	Temp. Difference °C	<u>+1.1</u>	Limit +/- 2°C	
Measured Press.	<u>763.4</u> (mm Hg)	Press. Difference ATM	<u>0.01337</u>	Limit +/- 0.02 ATM	
Measured Press.	<u>1.00463</u> (ATM)				
Leak Check					
Unit	Flow Controller Valve Closed (V1)	VL = 1/2 x V1	Pump Valve Closed After 10 Seconds (V2)	Leakage Calculation After 10 Seconds (V2 > V1)	Pass/Fail
Hub	<u>-25</u>	<u>-12.5</u>	<u>-24</u>	<u>1</u>	<u>Pass</u>
Flow Audit					
Audit Screen: Indicated Flow (L/min)	<u>16.7</u>	% Difference of Ind. & Meas. Flows (+/- 7%)	<u>+0.89%</u>		
Flow Meter: Measured Vol. Flow (L/min)	<u>16.85</u>	+/- Difference of Ind. & Set Flows (L/min)	<u>+0.15</u>		
Other Inspections					
Item:	Condition	Maintenance/Repairs			
Rubber Seals in Hub	<u>New/Serviceable</u>				
PM Inlet					
Knockout Jar					
Large Inline Filter					
Air Screens Under Rain Hoods					
Fan Screens					

Comments: Audit conducted after installation at Knollwood Park, Claymont, DE.

Signature: 

Partisol 2000 Sampler Audit

Background Data

Audit Data

Technician: John Lancaster
 Date: 3/10/08
 Station Name: 20933

Flow Kit

Make/Model: Stratone Pro Multistat Model M
 Serial Number: 08023

Partisol Sampler Data

Make/Model: Partisol 2000 Air Sampler-TSP
 Serial Number: 2000B 20933 0802
 Software Version: 1.503

Instrument Data Screen

Temperature (C): 8.6
 Pressure (ATM): 1.018
 Set Flow (L/min): 16.7

Partisol Parameters Before Audit

	Offset	Span
A/I	<u>0.0008</u>	<u>0.9990</u>
Temperature	<u>1.0015</u>	<u>1.0015</u>
Pressure	<u>1.0056</u>	<u>1.0056</u>
Flow	<u>0.0070</u>	<u>0.9990</u>

Conversion from Hg to ATM

ATM = (in Hg) x 0.0334207

Conversion from mm Hg to ATM

ATM = (mm Hg) x 0.001316

Audit Data

Temperature & Pressure Audit

Measured Temp. 10.6 (°C) Temp. Difference °C +2.0 Limit +/- 2°C
 Measured Press. 762.9 (mm Hg) Press. Difference ATM -0.014024 Limit +/- 0.02 ATM
 Measured Press. 1.00398 (ATM)

Leak Check

Unit	Flow Controller Valve Closed (V1)	VL = 1/2 x V1	Pump Valve Closed After 10 Seconds (V2)	Leakage Calculation After 10 Seconds (V2 > VL)	Pass/Fail
Hub	<u>-26</u>	<u>-13</u>	<u>-26</u>	<u>0</u>	<u>Pass</u>

Flow Audit

Audit Screen: Indicated Flow (L/min) 16.7 % Difference of Ind. & Meas. Flows (+/- 7%) +1.533
 Flow Meter: Measured Vol. Flow (L/min) 16.96 +/- Difference of Ind. & Set Flows (L/min) +0.26

Other Inspections

Item:	Condition	Maintenance/Repairs
Rubber Seals in Hub	<u>Servicable/New</u>	
PM Inlet TSP		
Knockout Jar		
Large Inline Filter		
Air Screens Under Rain Hoods		
Fan Screens		

Comments: Audit conducted after installation at Woodlawn - House Park, Claymont, DE

Signature: John Lancaster

Partisol 2000 Sampler Audit

Background Data

Audit Data

Technician: John Lancaster
 Date: 2/6/08
 Station Name: 20932

Flow Kit

Make/Model: Streamline Pro Multizal Model BM
 Serial Number: CAF0203

Partisol Sampler Data

Make/Model: Partisol Model 2000-TSP
 Serial Number: 20003209320802
 Software Version: 1.503

Instrument Data Screen

Temperature (C): 14.4
 Pressure (ATM): 1.000
 Set Flow (L/min): 16.7

Partisol Parameters Before Audit

	Offset	Span
AI	<u>-0.0031</u>	<u>1.0001</u>
Temperature	_____	<u>0.9999</u>
Pressure	_____	<u>1.0055</u>
Flow	<u>-0.0087</u>	<u>1.0370</u>

Conversion from Hg to ATM

ATM = (in Hg) x 0.0334207

Conversion from mm Hg to ATM

ATM = (mm Hg) x 0.001316

Audit Data

Temperature & Pressure Audit

Measured Temp. 14.2 (°C) Temp. Difference °C -0.2 Limit +/- 2°C
 Measured Press. 749.8 (mm Hg) Press. Difference ATM -0.0133 Limit +/- 0.02 ATM
 Measured Press. 0.9867 (ATM)

Leak Check

Unit	Flow Controller Valve Closed (V1)	VL = 1/2 x V1	Pump Valve Closed After 10 Seconds (V2)	Leakage Calculation After 10 Seconds (V2 > VL)	Pass/Fail
Hub	<u>-26</u>	<u>-13</u>	<u>-25</u>	<u>1</u>	<u>Pass</u>

Flow Audit

Audit Screen: Indicated Flow (L/min) 16.6 % Difference of Ind. & Meas. Flows (+/- 7%) -2.65%
 Flow Meter: Measured Vol. Flow (L/min) 16.16 +/- Difference of Ind. & Set Flows (L/min) -0.44

Other Inspections

Item:	Condition	Maintenance/Repairs
Rubber Seals in Hub	<u>New</u>	_____
PM Inlet	<u>New</u>	_____
Knockout Jar	<u>N/A</u>	_____
Large Inline Filter	<u>New</u>	_____
Air Screens Under Rain Hoods	<u>New</u>	_____
Fan Screens	<u>New</u>	_____

Comments: ^(CPW) - CR 2330A Battery is bad. Does not save current date/time when power is cycled.
- 1st Audit performed upon receipt of unit; done at Mechanic's bug office.

Signature: John Lancaster

Partisol 2000 Sampler Audit

Background Data																
Audit Data Technician: <u>John Lancaster</u> Date: <u>3/6/08</u> Station Name: <u>20933</u>	Flow Kit Make/Model: <u>Streamline Pro Multical Model M</u> Serial Number: <u>C080203</u>															
Partisol Sampler Data Make/Model: <u>Partisol Model 2000 - TSP</u> Serial Number: <u>2000B209330802</u> Software Version: <u>1.503</u>	Instrument Data Screen Temperature (C): <u>12.5</u> Pressure (ATM): <u>1.000</u> Set Flow (L/min): <u>16.7</u>															
Partisol Parameters Before Audit <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th></th> <th style="text-align: center;">Offset</th> <th style="text-align: center;">Span</th> </tr> </thead> <tbody> <tr> <td>A/I</td> <td style="text-align: center;"><u>0.0008</u></td> <td style="text-align: center;"><u>0.9990</u></td> </tr> <tr> <td>Temperature</td> <td style="text-align: center;"> </td> <td style="text-align: center;"><u>1.0015</u></td> </tr> <tr> <td>Pressure</td> <td style="text-align: center;"> </td> <td style="text-align: center;"><u>1.0056</u></td> </tr> <tr> <td>Flow</td> <td style="text-align: center;"><u>0.0070</u></td> <td style="text-align: center;"><u>0.9990</u></td> </tr> </tbody> </table>			Offset	Span	A/I	<u>0.0008</u>	<u>0.9990</u>	Temperature	 	<u>1.0015</u>	Pressure	 	<u>1.0056</u>	Flow	<u>0.0070</u>	<u>0.9990</u>
	Offset	Span														
A/I	<u>0.0008</u>	<u>0.9990</u>														
Temperature	 	<u>1.0015</u>														
Pressure	 	<u>1.0056</u>														
Flow	<u>0.0070</u>	<u>0.9990</u>														
Conversion from Hg to ATM ATM = (in Hg) x 0.0334207	Conversion from mm Hg to ATM ATM = (mm Hg) x 0.001316															

Audit Data					
Temperature & Pressure Audit					
Measured Temp.	<u>12.8</u> (°C)	Temp. Difference °C	<u>+ 0.3</u>	Limit +/- 2°C	
Measured Press.	<u>752.9</u> (mm Hg)	Press. Difference ATM	<u>- 0.0092</u>	Limit +/- 0.02 ATM	
Measured Press.	<u>0.9908</u> (ATM)				
Leak Check					
Unit	Flow Controller Valve Closed (V1)	VL = 1/2 x V1	Pump Valve Closed After 10 Seconds (V2)	Leakage Calculation After 10 Seconds (V2 > VL)	Pass/Fail
Hub	-25	-12.5	-24	1	Pass
Flow Audit					
Audit Screen: Indicated Flow (L/min)	<u>16.7</u>	% Difference of Ind. & Meas. Flows (+/- 7%)	<u>+ 1.76%</u>		
Flow Meter: Measured Vol. Flow (L/min)	<u>17.00</u>	+/- Difference of Ind. & Set Flows (L/min)	<u>+ 0.3</u>		
Other Inspections					
Item:	Condition	Maintenance/Repairs			
Rubber Seals in Hub	<u>New</u>				
PM Inlet	<u>New</u>				
Knockout Jar	<u>N/A</u>				
Large Inline Filter	<u>New</u>				
Air Screens Under Rain Hoods	<u>New</u>				
Fan Screens	<u>New</u>				

Comments: 1st Audit performed upon receipt of units. Done at Mechanicsburg office.

Signature: John Lancaster

Partisol 2000 Sampler Audit

Background Data

Audit Data

Technician: John Lancaster
 Date: 3/6/08
 Station Name: 20934

Flow Kit

Make/Model: Streamline Pro Multical Model M
 Serial Number: C080203

Partisol Sampler Data

Make/Model: Partisol Model 2000-TSP
 Serial Number: 2000B 20934 0802
 Software Version: 1.503

Instrument Data Screen

Temperature (C): 13.8
 Pressure (ATM): 1.000
 Set Flow (L/min): 16.7

Partisol Parameters Before Audit

	Offset	Span
A/I	<u>0.0008</u>	<u>0.9998</u>
Temperature	0.0008	<u>0.9985</u>
Pressure	0.0008	<u>1.0050</u>
Flow	<u>-0.0074</u>	<u>1.0075</u>

Conversion from Hg to ATM

ATM = (in Hg) x 0.0334207

Conversion from mm Hg to ATM

ATM = (mm Hg) x 0.001316

Audit Data

Temperature & Pressure Audit

Measured Temp. 13.6 (°C) Temp. Difference °C -0.2 Limit +/- 2°C
 Measured Press. 750.3 (mm Hg) Press. Difference ATM -0.0126 Limit +/- 0.02 ATM
 Measured Press. 0.9874 (ATM)

Leak Check

Unit	Flow Controller Valve Closed (V1)	VL = 1/2 x V1	Pump Valve Closed After 10 Seconds (V2)	Leakage Calculation After 10 Seconds (V2 > VL)	Pass/Fail
Hub	<u>-24</u>	<u>-12</u>	<u>-24</u>	<u>0</u>	<u>Pass</u>

Flow Audit

Audit Screen: Indicated Flow (L/min) 16.6 % Difference of Ind. & Meas. Flows (+/- 7%) +0.72%
 Flow Meter: Measured Vol. Flow (L/min) 16.72 +/- Difference of Ind. & Set Flows (L/min) +0.12

Other Inspections

Item:	Condition	Maintenance/Repairs
Rubber Seals in Hub	<u>New</u>	
PM Inlet	<u>New</u>	
Knockout Jar	<u>N/A</u>	
Large Inline Filter	<u>New</u>	
Air Screens Under Rain Hoods	<u>New</u>	
Fan Screens	<u>New</u>	

Comments: 1st Audit First audit performed upon receipt of unit; done at Mechanicsburg office.

Signature: John Lancaster

Partisol 2000 Sampler Audit

Background Data

Audit Data

Technician: John Lancaster
 Date: 3/3/08
 Station Name: 29036

Flow Kit

Make/Model: Streamline Pro Multizel Model 17
 Serial Number: CA80203

Partisol Sampler Data

Make/Model: Partisol Model 2000-TSP
 Serial Number: 20003 20936 0802
 Software Version: LS03

Instrument Data Screen

Temperature (C): 22.1
 Pressure (ATM): 0.994
 Set Flow (L/min): 16.7

Partisol Parameters Before Audit

	Offset	Span
AI	0.0005	0.9987
Temperature		1.0013
Pressure		1.0099
Flow	-0.0109	1.0088

Conversion from Hg to ATM

ATM = (in Hg) x 0.0334207

Conversion from mm Hg to ATM

ATM = (mm Hg) x 0.001316

Audit Data

Temperature & Pressure Audit

Measured Temp. 22.3 (°C) Temp. Difference °C +0.2 Limit +/- 2°C
 Measured Press. 749.3 (mm Hg) Press. Difference ATM -0.00790 Limit +/- 0.02 ATM
 Measured Press. 0.9861 (ATM)

Leak Check

Unit	Flow Controller Valve Closed (V1)	VL = 1/2 x V1	Pump Valve Closed After 10 Seconds (V2)	Leakage Calculation After 10 Seconds (V2 > VL)	Pass/Fail
Hub	-25	-12.5	-24	24 > 12.5	Pass

Flow Audit

Audit Screen: Indicated Flow (L/min) 16.6 % Difference of Ind. & Meas. Flows (+/- 7%) +1.89%
 Flow Meter: Measured Vol. Flow (L/min) 16.92 +/- Difference of Ind. & Set Flows (L/min) +0.320

Other Inspections

Item:	Condition	Maintenance/Repairs
Rubber Seals in Hub	<u>New</u>	
PM Inlet	<u>New</u>	
Knockout Jar	<u>N/A</u>	
Large Inline Filter	<u>New</u>	
Air Screens Under Rain Hoods	<u>New</u>	
Fan Screens	<u>New</u>	

Comments: - First audit performed upon receipt of units. Completed at Mechanicsburg office.
- CPU battery (CR 2330) is bad. Does not save current time/date when the power is cycled off and on.

Signature: John Faust