Attachment D.2

E-LABS

FREDERICKSBURG, VIRGINIA - USA

# FINAL TEST REPORT No. 2341-B

April 20, 2011 Pages: Cover+44

## ENVIRONMENTAL TEST REPORT

for

**Settling Dust, Temperature/Humidity, Drop, Shock and Radiated Susceptibility Testing**

applied to

**Four (4) Personal Dust Monitors P/N 42-009904**

in accordance with

**MIL-STD-810F**
**Environmental Engineering Considerations and Laboratory Tests, Dated 1 January 2000 and Customers Verbal Instructions**

**Submitted to:**

**Exponent Failure Analysis Associates**
149 Commonwealth Drive
Menlo Park, CA 94025

**Approved By:**


**Kenneth C. Malley, Jr.**
**CEO**
**E-LABS, Inc.**
**www.e-labsinc.com**



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AB64-COMM-92-4.1

| | | | |
|---|---|---|---|
| *E-LABS INC* | ENVIRONMENTAL TEST REPORT<br>Settling Dust, Temperature/Humidity, Drop, Shock and Radiated Susceptibility Testing<br>Four (4) Personal Dust Monitors P/N 42-009904<br>***Exponent Failure Analysis Associates*** | | DATE 20Apr11 |
| | DOCUMENT NO.: Report No. 2111 | | REVISION -0- |
| ENGINEERING CHANGE RECORD | | Form Approved By: | /s/ Ken Malley Jr., Process Owner |

| *Change* | *Page* | *Date* | *Description* |
|---|---|---|---|
| 0 | All | 20Apr11 | Original Issue |
| | | | |
| | | | |

## EXECUTIVE SUMMARY

E-LABS, Inc. performed Settling Dust, Temperature/Humidity, Drop, Shock and Radiated Susceptibility (RS103) Testing for Exponent Failure Analysis Associates on their Personal Dust Monitors P/N 42-009904. This equipment is identified in table ES-1 which will be known as Equipment Under Test (EUT) throughout this report.

Testing was performed between April 11 and April 19, 2011.

All testing was performed at and under the control of E-LABS Laboratory, 5150 Lad Land Drive, Fredericksburg, VA 22407.

A summary of result of testing are presented in the following Test Summary, table ES-3 and in more detail in section 5.2.

Table ES-1: Equipment Under Test

| *EUT Number* | *Description* | *Part Number* | *Serial Number* |
|---|---|---|---|
| 1 | Personal Dust Monitor | 42-009904 | 509055 |
| 2 | Personal Dust Monitor | 42-009904 | 609014 |
| 3 | Personal Dust Monitor | 42-009904 | 310532 |
| 4 | Personal Dust Monitor | 42-009904 | 310531 |

Table ES-2: Test Applied to Equipment Under Test

| ***Test*** | ***Method (modified)*** |
|---|---|
| ***Settling Dust*** | MIL-STD-810F, Method 510.4, Procedure III |
| ***Temperature/Humidity*** | MIL-STD-810F, Method 507.4 |
| ***Drop Test*** | MIL-STD-810F, Method 516.5, Procedure IV |
| ***Functional Shock*** | MIL-STD-810F, Method 516.5, Procedure I |
| ***Radiated Susceptibility (RS103)*** | MIL-STD-461F, Section 5.20, Radiated Susceptibility |

Table ES-3: Test Summary

| ***Date*** | ***EUT Number*** | ***Test Applied*** | ***Results*** |
|---|---|---|---|
| 11Apr-13Apr11 | 1,2 & 4 | Settling Dust | Used for informational purposes, see section 5.2.1 |
| 14Apr11 | 1,2 & 4 | Temperature/Humidity | Used for informational purposes, see section 5.2.2 |
| 14Apr11 | 3 | Drop | No anomalies observed |
| 14Apr11 | 3 | Functional Shock | No anomalies observed |
| 19Apr11 | 1 | Radiated Suseptability-RS103 | Used for informational purposes, see section 5.2.5 |

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## 1. INTRODUCTION

Exponent Failure Analysis Associates contracted test services for environmental testing with E-Labs. Exponent Failure Analysis Associates provided all of the EUT and all necessary support equipment to perform operational tests. This report documents the preparations, set-up, methods, and results for Settling Dust, Temperature/Humidity, Drop, Shock and Radiated Susceptibility (RS103) testing of the EUT.

## 2. TEST FACILITY

Testing was performed by E-LABS, Inc. [www.e-labsinc.com] at its laboratory facility located at 5150 Lad Land Drive in Fredericksburg, Virginia.

## 3. TEST ITEMS

E-LABS received and recorded all the EUT for testing.

The UUT was received at E-LABS on or before April 11, 2011. The test item was received in 'No Visual Damage' condition.

## 4. TEST REQUIREMENTS [Applicable Documents (AD)]

Testing of the EUT was conducted in accordance with:

AD-1: MIL-STD-810F: Environmental Engineering Considerations and Laboratory Tests, dated 1 January 2000.

AD-2: E-LABS quotation No. 02341-B dated Feb 21, 2011.

# 5. TESTING

## 5.1 Preparation

The EUT was sequenced for testing as detailed above in Table ES-3.

All equipment used for accuracy and data recording was calibrated with traceability to National Institute of Standards and Technology reference standards. See table 5.1-1 for a list of equipments used and calibration dates.

Table 5.1-1: Equipment and Calibration Data

| Instrument | Model No. | Serial No. | Manufacturer | Calibration Date | Calibration Due Date |
|---|---|---|---|---|---|
| Particulate Air Monitor | AQ-10 | 03072068 | Haz-Dust | 20June10 | 20June11 |
| Hydra Data logger | 2625A | 6543601 | Fluke | 12Oct10 | 12Oct11 |
| Hydra Data logger | 2625A | 6114602 | Fluke | 9June10 | 9June11 |
| Vibration Controller | AX61400TB | S436140 02B0025 | Unholtz-Dickie | 8Jun10 | 8Jun11 |
| Signal Conditioner | 483B07 | 618 | PCB | 7Sep10 | 7Sep11 |
| Accelerometer | J353B04 | 9243 | PCB | 10Mar10 | 10Mar11 |
| Field Meter | NBM-550 | D-0189 | Narda | 16Feb11 | 16Feb13 |
| Field Probe | EF0391 | A-1246 | Narda | 15Oct10 | 15Oct12 |
| Signal Generator | 2022C | 119032 | Marconi | 11April11 | 11Apr12 |
| Bi-Log Antenna | SAS-521-2 | 514 | A.H. Systems | 1Mar11 | 1Mar12 |

## 5.2 Description of Test

### 5.2.1-Settling Dust Test

#### Parameters

A) Temperature: ambient-35 ± 2°C (70-95 ± 3.6°F)

B) Humidity: ambient-95 ± 4 % R.H.

C) Medium: Talcum powder

D) Cycles: As detailed

E) Operate: Continuously

Step 1) The EUT # 1, 2 and 4 were placed into the settling powder chamber in its normal operating configuration.

Step 2) Chamber set at laboratory ambient conditions.

Step 3) Start of 1 hour test at ambient conditions with a 50 second purge of powder.

Step 4) After 15 minutes purged powder for 60 seconds.

Step 5) 30 minutes into test purged powder for another 40 seconds.

Step 6) End of 1 hour test, ramping chamber to 95°F with 95% R.H.

Step 7) 15 minutes into ramp purged powder for 35 seconds.

Step 8) 1 hour into test chamber at 95°F with 87% R.H.

Step 9) 1 hour 10 minutes into test purged powder for 35 seconds, no response from EUT.

Step 10) Approximately 1 hour 15 minutes into test purged powder for 30 seconds, no response from EUT.

Step 11) Approximately 1 hour 20 minutes into test purged powder for 70 seconds, small response from EUT.

Step 12) End of test run.

Step 13) Ramping chamber to 95°F with 87% R.H.

Step 14) Approximately 11 minutes into test chamber at 95°F with 87% R.H., purged 2.2 mg/m$^2$ into chamber, support equipment monitored 1.8 mg/m$^3$.

Step 15) End of test run.

Step 14) Ramping chamber to 95°F with 85% R.H.

Step 15) 45 minutes into test chamber at 95°F with 85% R.H., purged powder for 50 seconds 2.5 mg/m$^2$ into chamber, support equipment monitored 1.8 mg/m$^3$.

Step 16) Approximately 12 minutes later purged powder for 35 seconds support equipment monitored 3.83 mg/m$^3$ .

Step 17) Approximately 5 minutes later purged powder for 10 seconds support equipment monitored 5.62 mg/m$^3$.

Step 18) Approximately 12 minutes later purged powder for 30 seconds.

Step 19) Approximately 15 minutes later purged powder for 10 seconds.

Step 20) End of test run.

Step 21) Ramping chamber to 95°F with 75% R.H..

Step 22) Start of test with 50 second of powder purge.

Step 23) Approximately 15 minutes later purged powder for 30 seconds.

Step 24) Approximately 12 minutes later purged powder for 10 seconds.

Step 25) Approximately 3 minutes later purged powder for 30 seconds.

Step 26) Approximately 2 minutes later purged powder for 10 seconds.

Step 27) Approximately 13 minutes later purged powder for 30 seconds.

Step 28) Approximately 5 minutes later purged powder for 10 seconds.

Step 29) End of test run.

Step 30) Chamber at 75°F with 75% R.H., start of test with 5 second of powder purge.

Step 31) Approximately 22 minutes later purged powder for 5 seconds.

Step 32) Approximately 10 minutes later purged powder for 5 seconds.

Step 33) Approximately 16 minutes later purged powder for 1 seconds.

Step 34) End of test run.

Step 35) Chamber at 71°F with 85% R.H., start of test with 5 second of powder purge. Support equipment peaked at 1.8 mg/m$^3$ than dropped to .5 mg/m$^3$.

Step 36) Approximately 15 minutes later purged powder for 5 seconds support equipment monitored .8 mg/m$^3$.

Step 37) Approximately 15 minutes later purged powder for 5 seconds support equipment monitored .5 mg/m$^3$.

Step 38) Approximately 15 minutes later purged powder for 5 seconds support equipment monitored .6 mg/m$^3$.

Step 39) End of test run.

Step 40) Chamber at 77°F with 89% R.H., start of test with 5 seconds of powder purge support equipment monitored .9 mg/m$^3$.

Step 41) Approximately 11 minutes later purged powder for 5 seconds support equipment monitored 1.4 mg/m$^3$.

Step 42) Approximately 15 minutes later purged powder for 5 seconds support equipment monitored 1.15 mg/m$^3$.

Step 43) Approximately 15 minutes later purged powder for 5 seconds support equipment monitored .815 mg/m$^3$.

Step 44) End of test run.

See photos 5.2.1-1 and 5.2.1-2 for settling powder setup.

See charts 5.2.2-3 thru 5.2.3-12 for temperature/humidity profile.

Photo 5.2.1-1: Settling dust setup

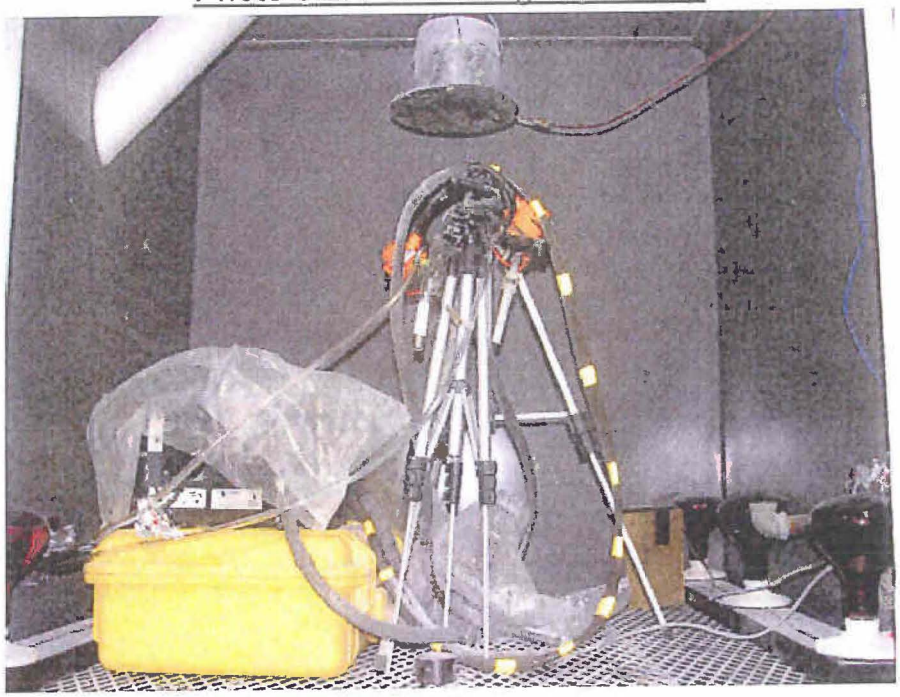
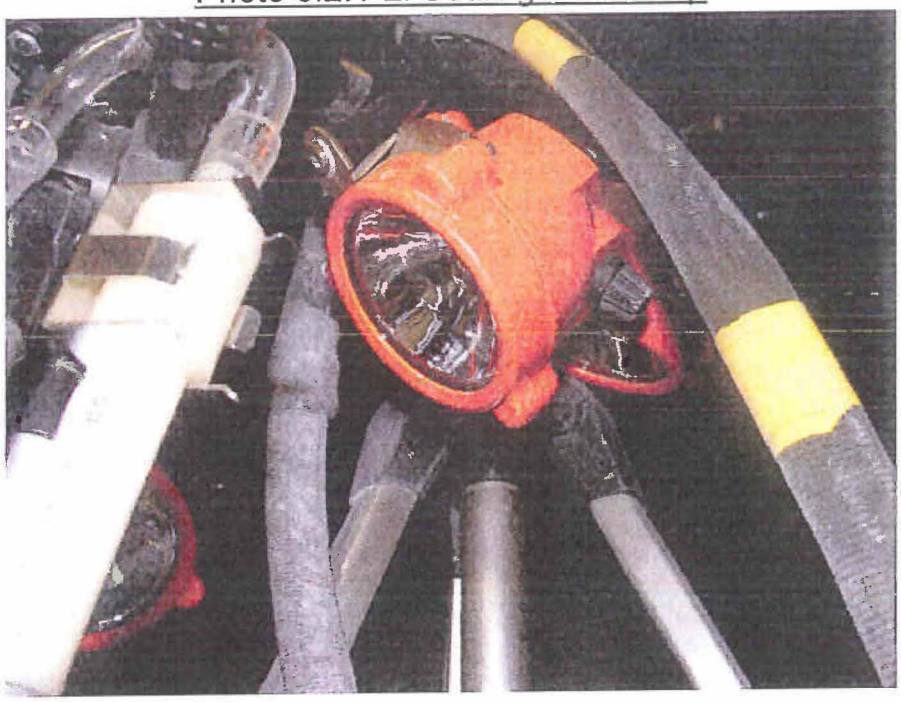
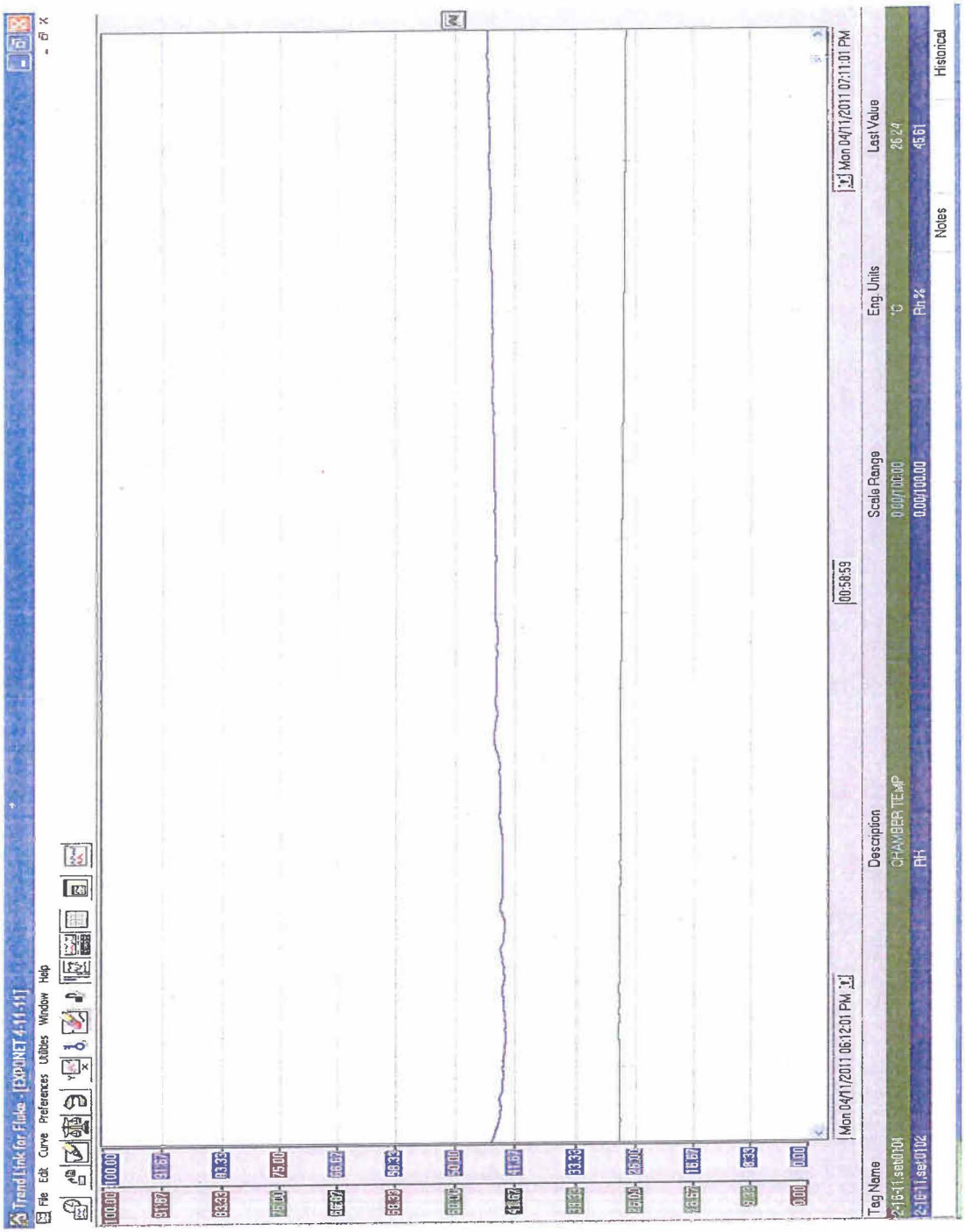


Photo 5.2.1-2: Settling dust setup

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91.67
83.33
75.00
66.67
58.33
50.00
41.67
33.33
25.00
16.67
8.33
0.00
Mon 04/11/2011 06:12:01 PM
00:58:59
Mon 04/11/2011 07:11:01 PM
Tag Name
Description
Scale Range
Eng. Units
Last Value
2-16-11.set0104
CHAMBER TEMP
0.00/100.00
°C
26.24
2-16-11.set0102
RH
0.00/100.00
Rh %
45.61
Notes
Historical

Trend Link for Fluke - [EXPONET 4-11-11]
File Edit Curve Preferences Utilities Window Help
Mon 04/11/2011 06:12:01 PM
00:58:59
Mon 04/11/2011 07:11:01 PM
Tag Name
Description
Scale Range
Eng. Units
Last Value
CHAMBER TEMP
RH
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0.00/100.00
Rh %
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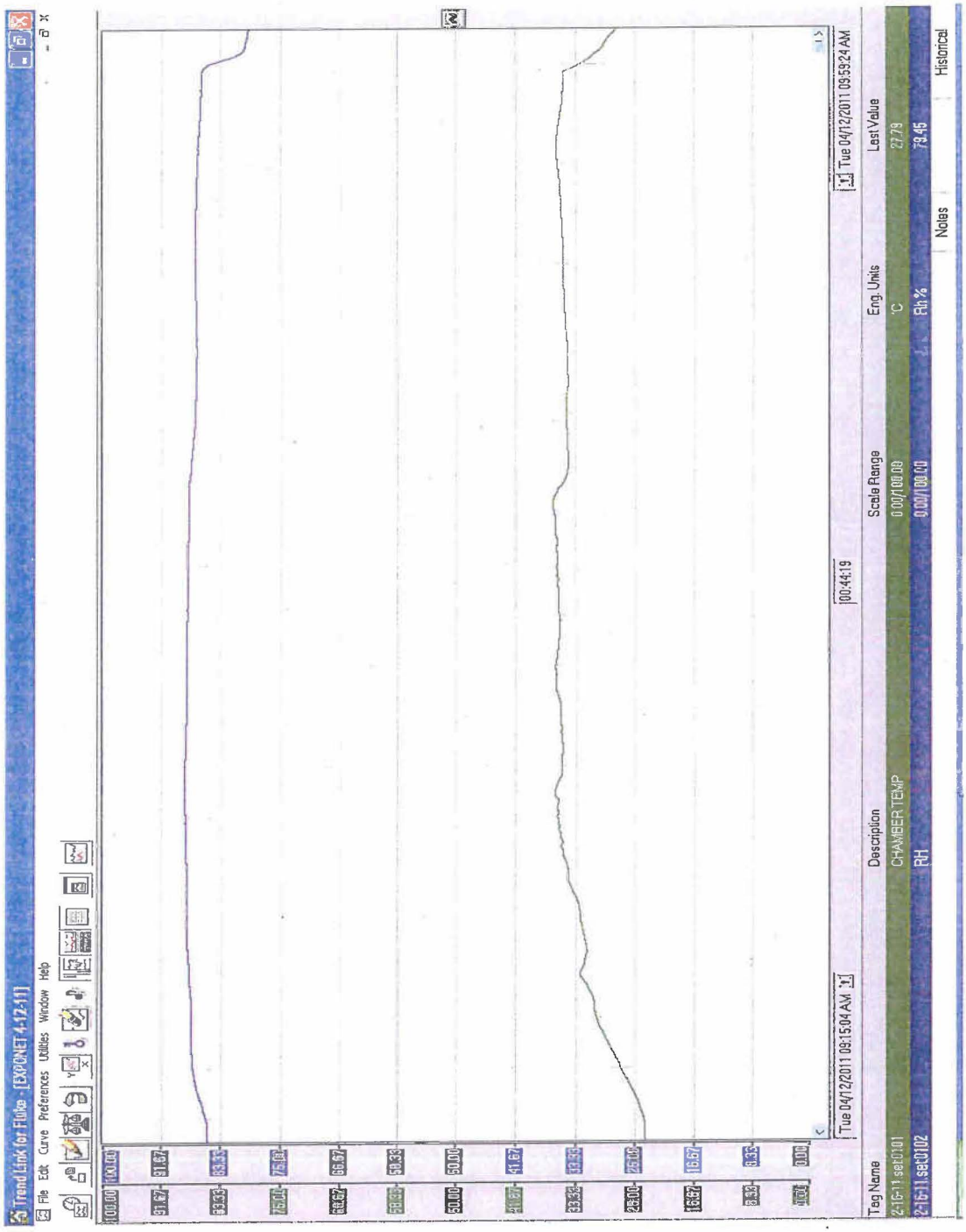
Notes
Historical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75.00
66.67
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50.00
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33.33
25.00
16.67
8.33
0.00
Tue 04/12/2011 09:15:04 AM
00:44:19
Tue 04/12/2011 09:59:24 AM
Tag Name
Description
Scale Range
Eng. Units
Last Value
2-16-11 sec0101
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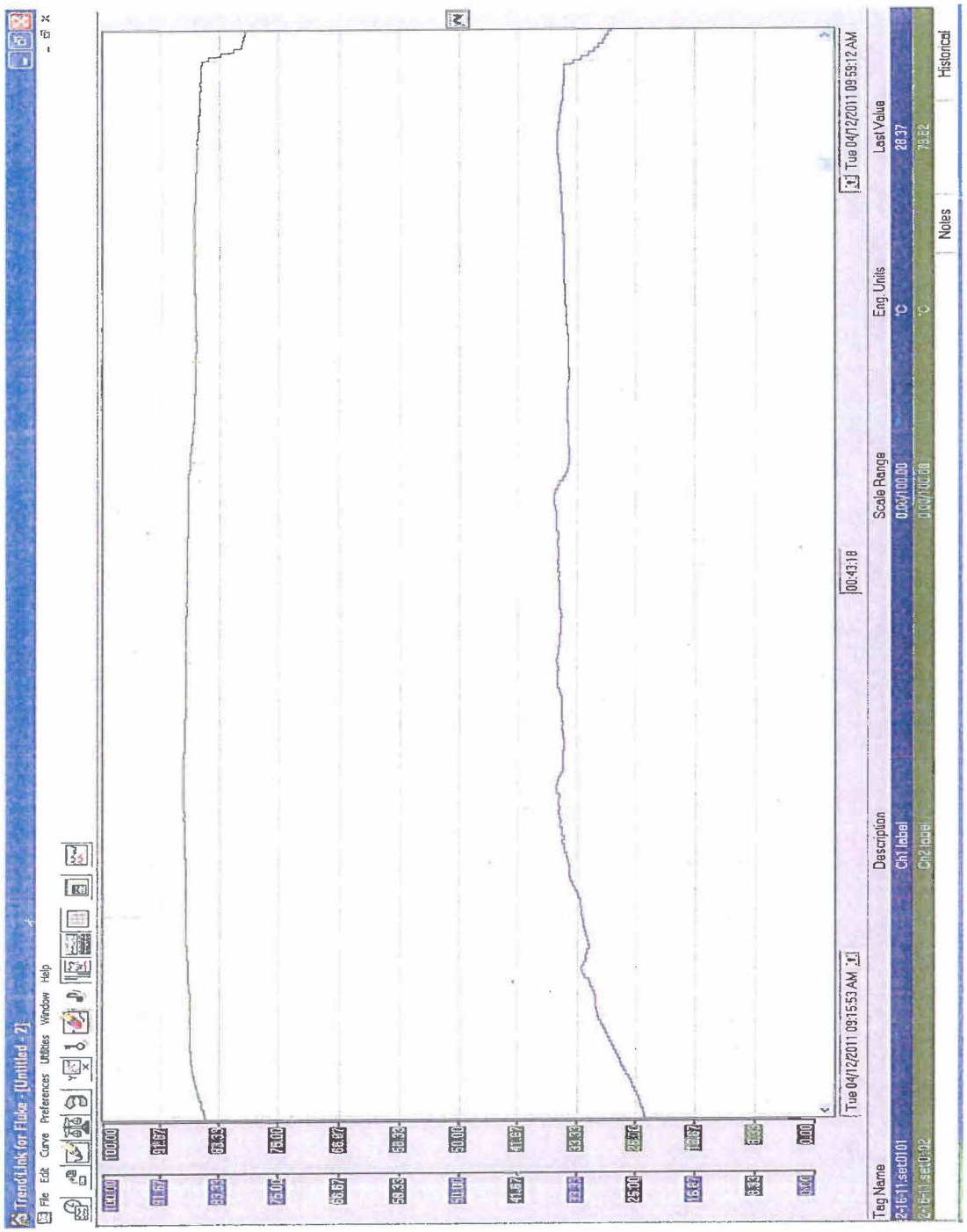
°C
27.79
2-16-11 sec0102
RH
0.00/100.00
Rh %
73.45
Notes
Historical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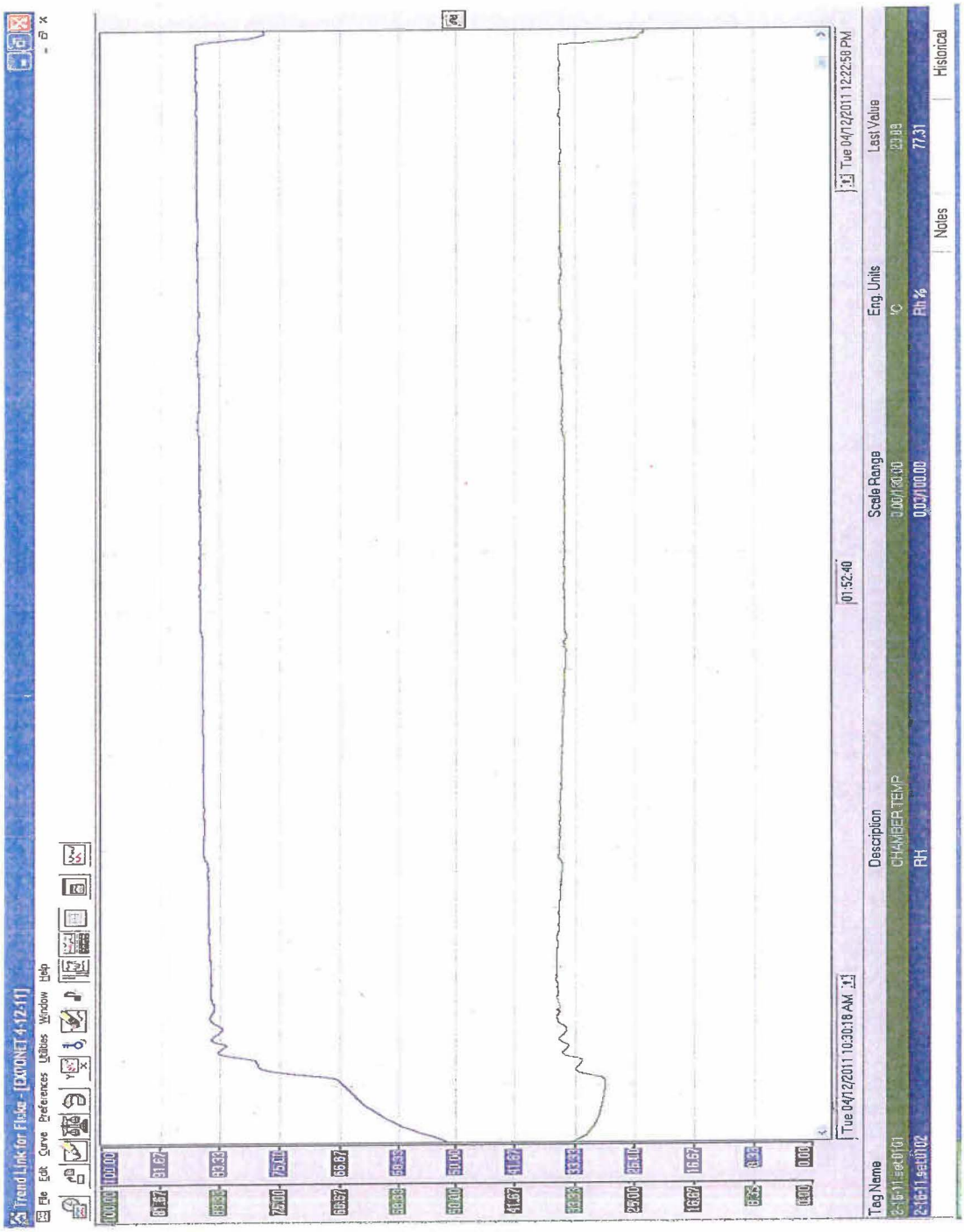
83.33
75.00
66.67
58.33
50.00
41.67
33.33
25.00
16.67
8.33
0.00
Tue 04/12/2011 09:15:53 AM
00:43:18
Tue 04/12/2011 09:59:12 AM
Tag Name
Description
Scale Range
Eng. Units
Last Value
2-16-11.set0101
Ch1 label
0.00/100.00
°C
28.37
2-16-11.set0102
Ch2 label
°C
79.62
Notes
Historical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50.00
41.67
33.33
25.00
16.67
8.33
0.00
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01:52:40
Tue 04/12/2011 12:22:58 PM
Tag Name
Description
Scale Range
Eng Units
Last Value
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CHAMBER TEMP
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°C
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2-16-11.set01.02
RH
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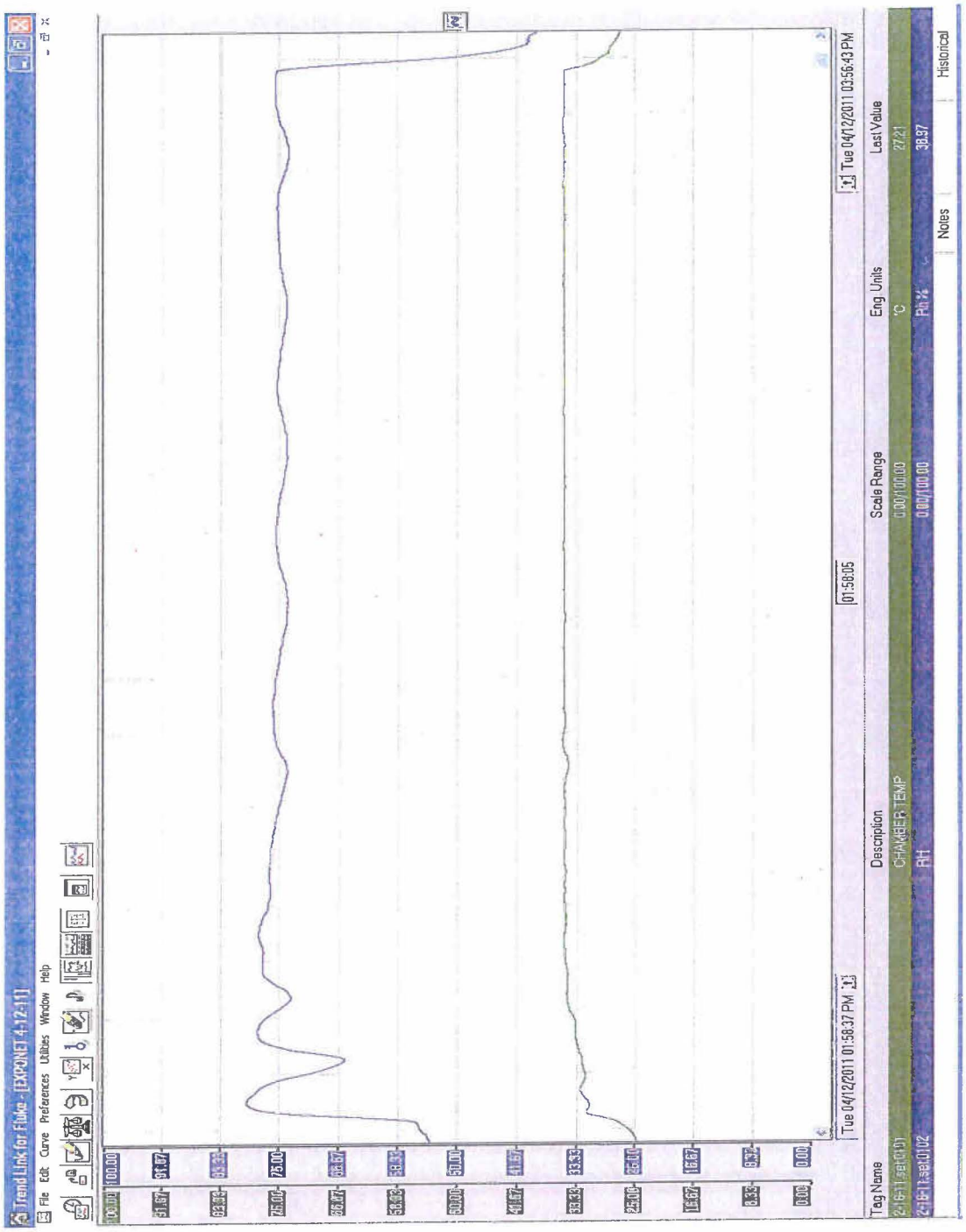
RH %
77.31
Notes
Historical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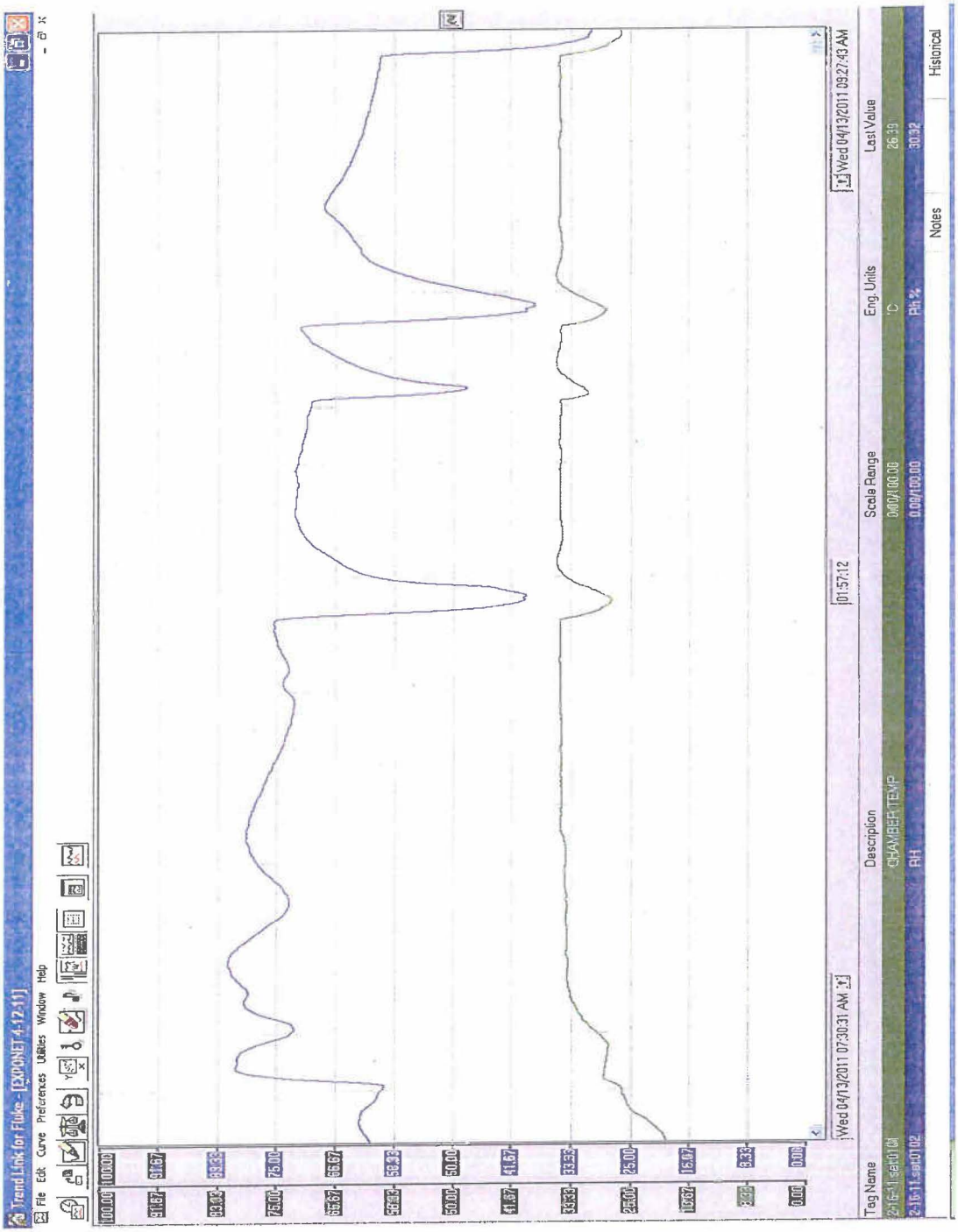
01:58:05
Tue 04/12/2011 03:56:43 PM
Tag Name
Description
Scale Range
Eng Units
Last Value
CHAMBER TEMP
°C
27.21
RH
Rh %
38.97
Notes
Historical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01:57:12
Wed 04/13/2011 09:27:43 AM
Tag Name
Description
Scale Range
Eng. Units
Last Value
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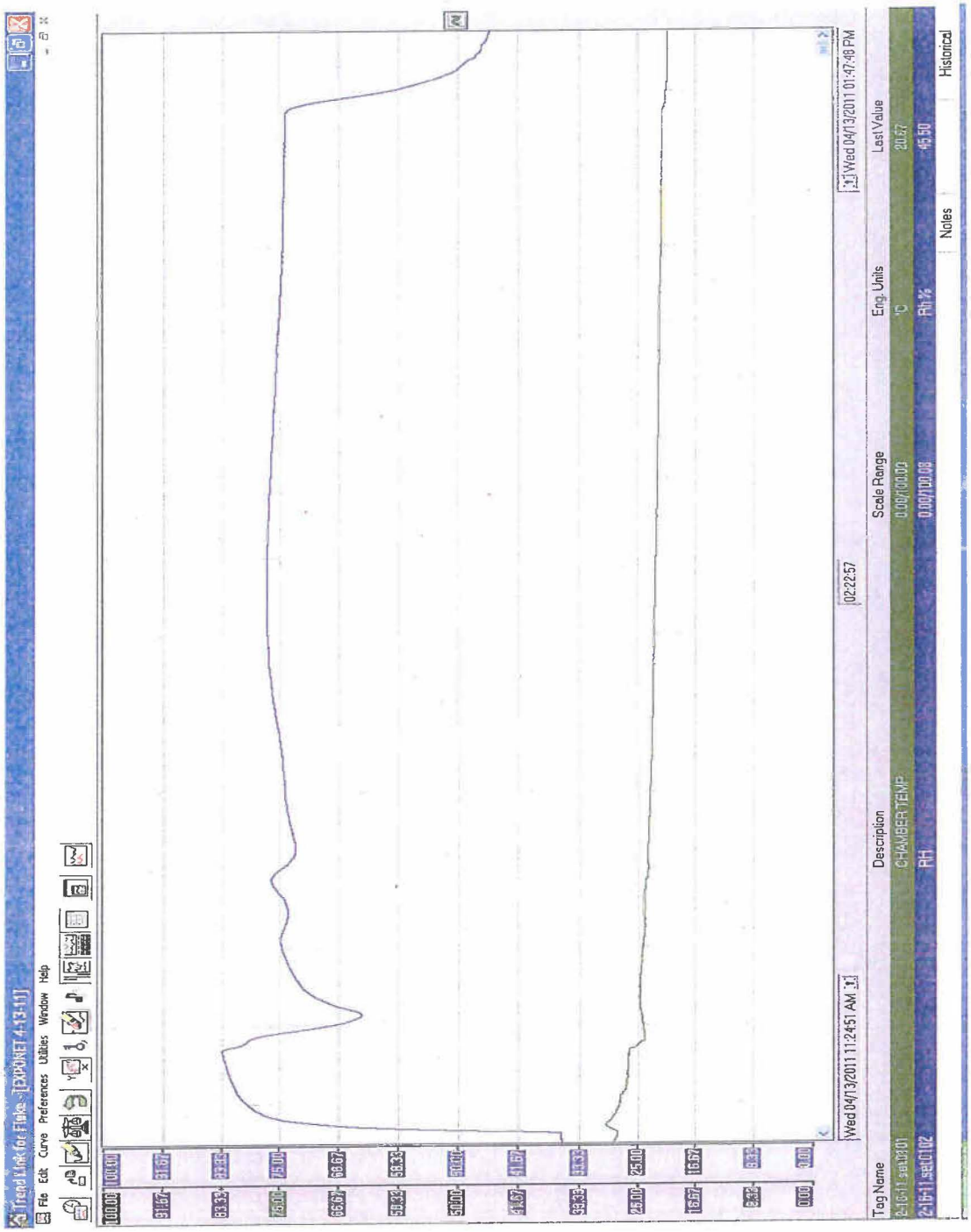
°C
26.39
RH
0.00/100.00
Rh %
30.32
Notes
Historical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02:22:57
Wed 04/13/2011 01:47:48 PM
Tag Name
Description
Scale Range
Eng. Units
Last Value
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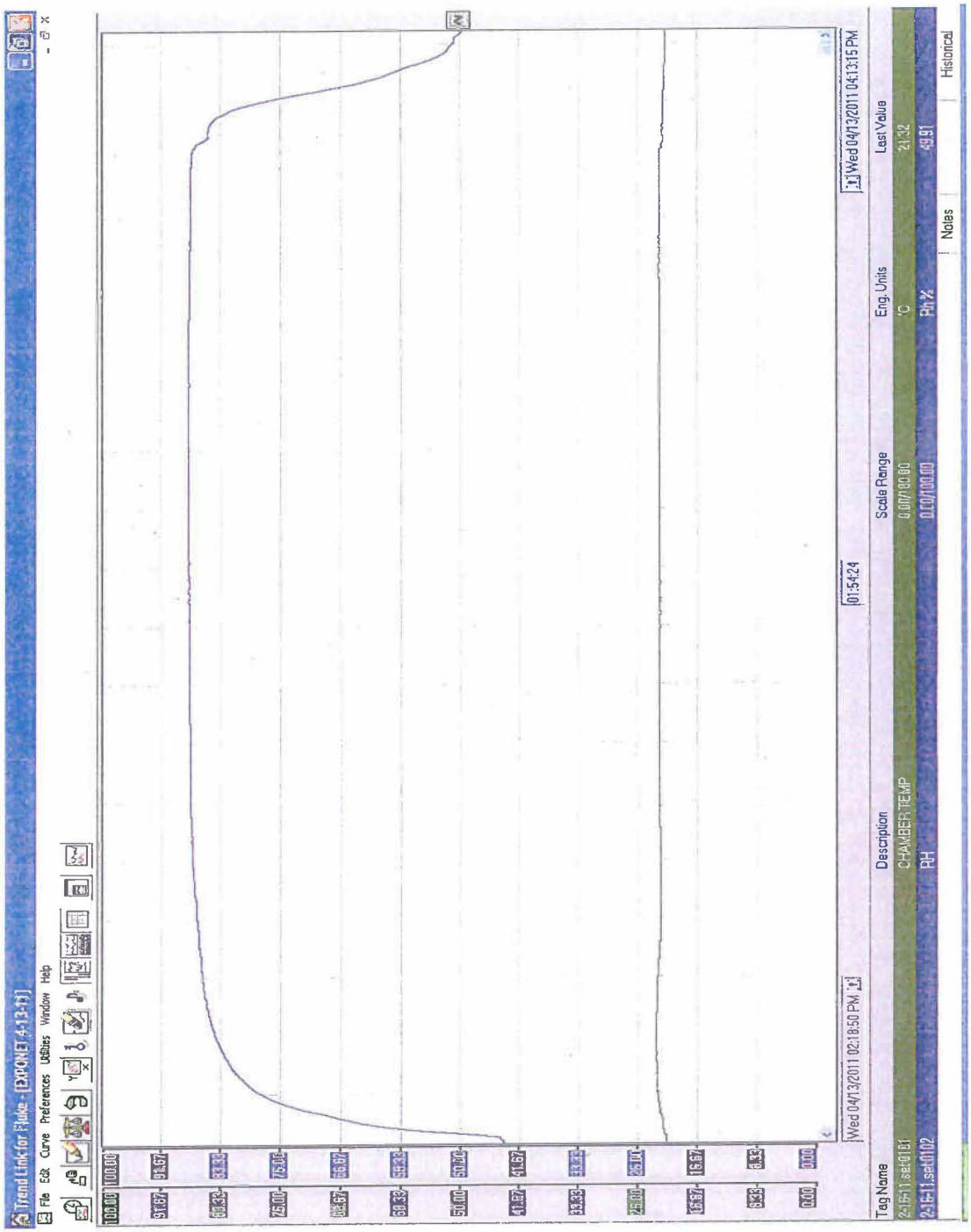
°C
20.67
RH
0.00/100.00
Rh %
45.50
Notes
Historical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91.67
83.33
75.00
66.67
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33.33
25.00
16.67
8.33
0.00
Wed 04/13/2011 02:18:50 PM
01:54:24
Wed 04/13/2011 04:13:15 PM
Tag Name
Description
Scale Range
Eng. Units
Last Value
2-16-11.set0161
CHAMBER TEMP
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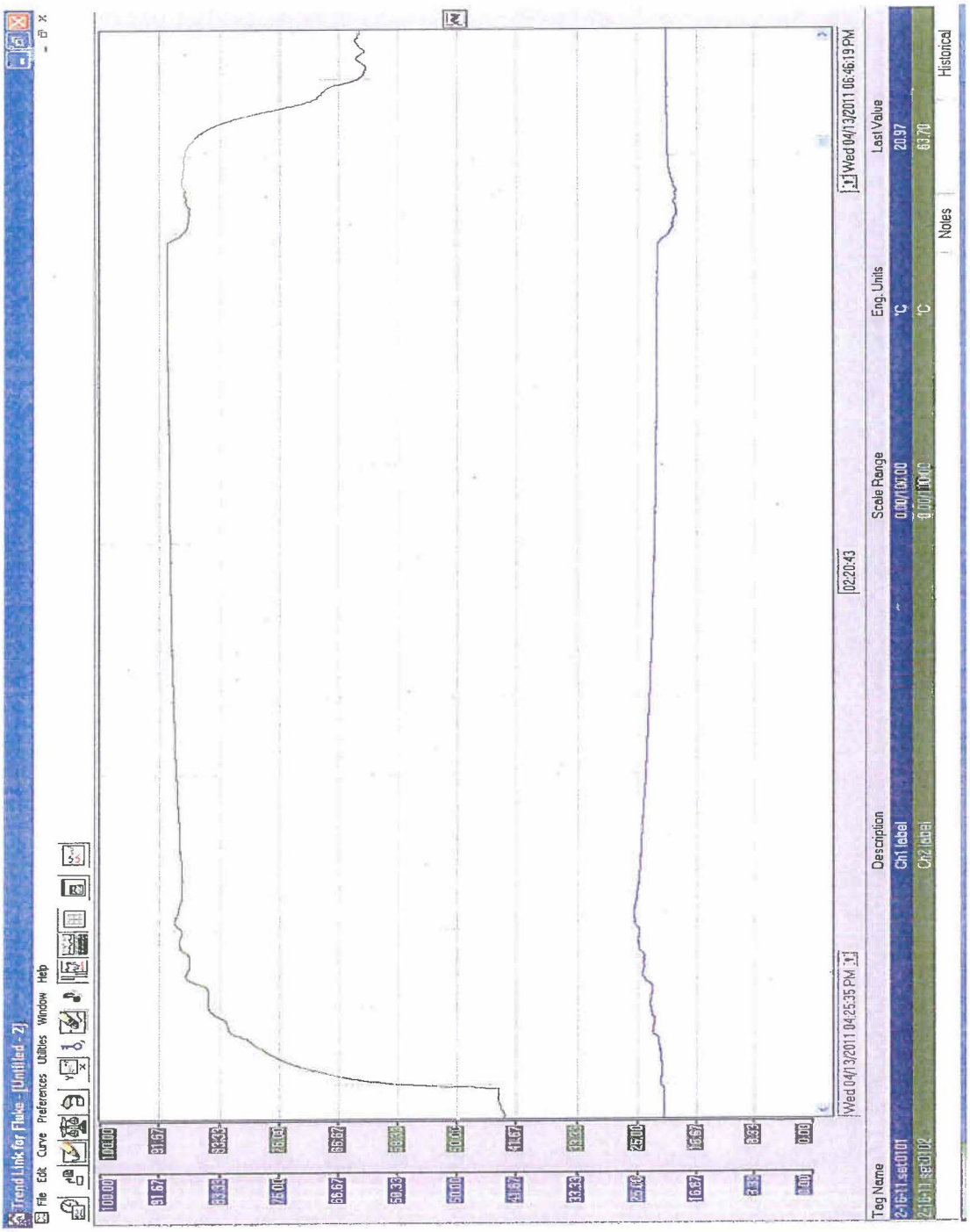
°C
21.32
2-16-11.set0102
RH
0.00/100.00
RH %
49.91
Notes
Historical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File Edit Curve Preferences Utilities Window Help
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02:20:43
Wed 04/13/2011 06:46:19 PM
Tag Name
Description
Scale Range
Eng. Units
Last Value
Ch1 label
Ch2 label
°C
20.97
63.70
Notes
Historical

## 5.2.2-Temperature/Humidity Test

### Parameters

A) Temperature: 21.1-35 ± 2°C (70-95 ± 3.6°F)

B) Humidity: 70-95 ± 4 % R.H.

C) Cycles: As detailed

D) Operate: Continuously

Step 1) The EUT # 1, 2 and 4 were placed into the humidity chamber in its normal operating configuration.

Step 2) The chamber was ramped up to 70°F at 70% R.H in 30 minutes.

Step 3) After approximately 20 minutes the chamber was ramped to 70°F at 75% R.H.

Step 4) After approximately 1 hr and 20 minutes the chamber was ramped to 70°F at 80% R.H.

Step 5) After approximately 20 minutes the chamber was ramped to 70°F at 85% R.H.

Step 6) After approximately 20 minutes the chamber was ramped to 70°F at 95% R.H.

Step 7) After approximately 30 minutes the chamber was ramped to 75°F at 70% R.H.

Step 8) After approximately 20 minutes the chamber was ramped to 80°F at 70% R.H.

Step 9) After approximately 30 minutes the chamber was ramped to 85°F at 70% R.H.

Step 10) After approximately 20 minutes the chamber was ramped to 90°F at 70% R.H.

Step 11) After approximately 40 minutes the chamber was ramped to 95°F at 70% R.H.

Step 13) After approximately 30 minutes the chamber was ramped to 95°F at 75% R.H.

Step 14) After approximately 20 minutes the chamber was ramped to 95°F at 80% R.H.

Step 15) After approximately 15 minutes the chamber was ramped to 95°F at 85% R.H.

Step 16) After approximately 20 minutes the chamber was ramped to 70°F at 60% R.H.

## ***Humidity Test Results***

There were no anomalies observed with the EUT operating during humidity.

See photos 5.2.2-1 for humidity setup.

See charts 5.2.2-2 for temperature/humidity profile.

Photo 5.2.2-1: Temperature/Humidity setup

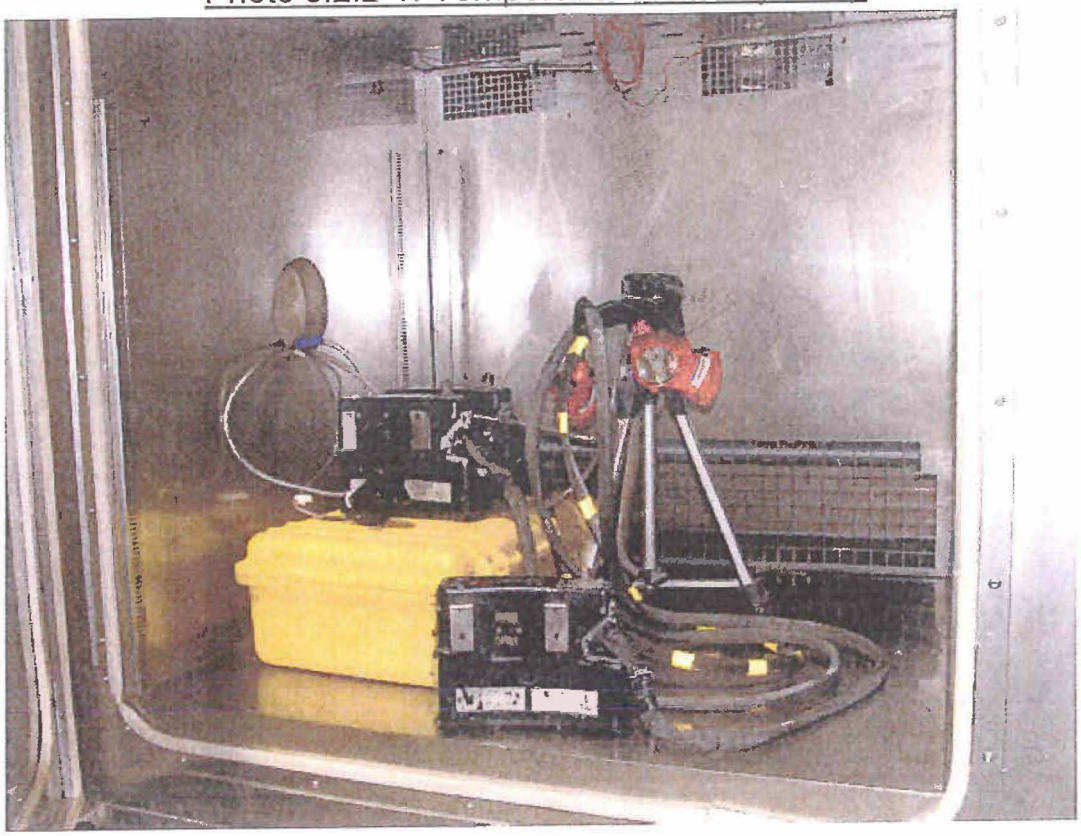
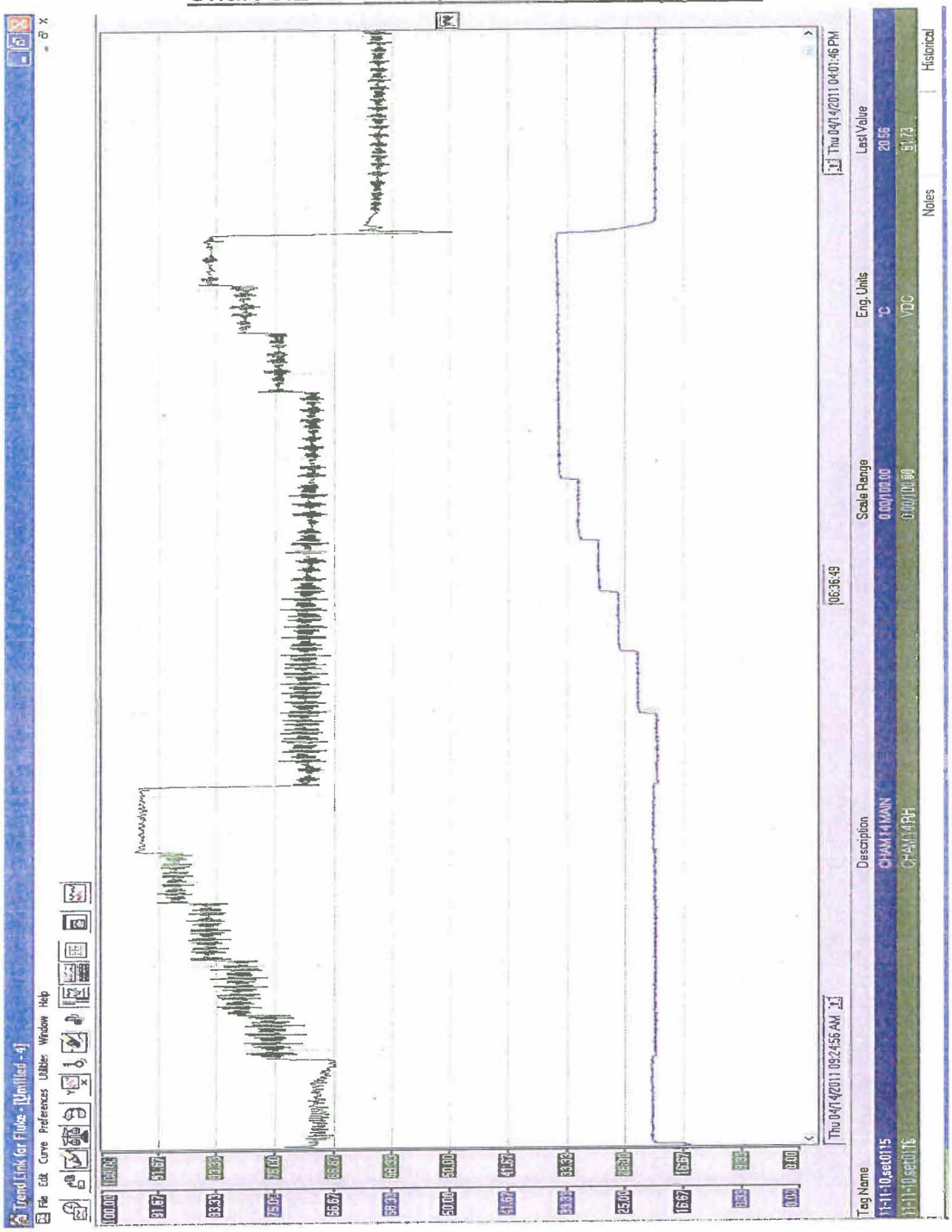


Chart 5.2.2-2: Temperature/Humidity profile



### *5.2.3-Drop Test*

#### *Parameters*

A) Height: 48"

B) Drops: Eight (8) total

C) Drop Orientation: Bottom, Front, Back and Side

D) Drop medium: Packed dirt

E) Operate: Continuous

Step 1) The EUT #3 was placed into its normal operating configuration.

Step 2) The EUT #3 was positioned from a height of 48" from a medium of packed dirt.

Step 3) The EUT #3 was exposed to the 1st drop on the bottom surface.

Step 4) The EUT #3 was exposed to the 1st drop on the front surface.

Step 5) The EUT #3 was exposed to the 1st drop on the back surface.

Step 6) The EUT #3 was exposed to the 1st drop on the side surface.

Step 7) Steps 3 thru 6 were performed a 2nd time for a total of eight (8) drops.

#### ***Drop Test Results***

There were no anomalies observed with EUT #3 as a result of the Drop tests.

See photos 5.2.3-1 thru 5.2.3-4 for drop setup

Photo 5.2.3-1: Bottom surface drop exposure

Photo 5.2.3-2: Front surface drop exposure

Photo 5.2.3-3: Back surface drop exposure

Photo 5.2.3-4: Side surface drop exposure

### 5.2.4-Functional Shock Tests

#### Parameters

A) Peak Acceleration: 30 ± 4g's

B) Duration: 11 ± 1.1ms

C) Type: Saw-tooth

D) Impacts: 6 per axis (18 total)

E) Directions: 3 positive, 3 negative

F) Operate: Continuous

Step1) The EUT #3 was mounted on the electro-dynamic shaker in the X-axis and torque to specification.

Step 2) All cabling was connected to the EUT #3 to verify operational performance during the shock tests.

Step 3) An accelerometer was attached to the slip plate for controlling strategy.

Step 4) Applied three (3) shock pulses in both the positive and negative directions for a total of six (6) in the X-axis.

Step 5) No anomalies were observed as a result of X-axis shock test.

Step 6) The fixture and EUT #3 was rotated 90° into the Y-axis.

Step 7) Applied three (3) shock pulses in both the positive and negative directions for a total of six (6) in the Y-axis.

Step 8) No anomalies were observed as a result of Y-axis shock test.

Step 9) The fixture/EUT and electro-dynamic shaker was rotated 90° into the Z-axis.

Step 10) Applied three (3) shock pulses in both the positive and negative directions for a total of six (6) in the Z-axis.

Step 11) No anomalies were observed as a result of Z-axis shock test.

## ***Shock Test Results***

No anomalies were observed as a result of the Shock Tests.

See photos 5.2.4-1 thru 5.2.4-3 for shock setup.

See Charts 5.2.4-4 thru 5.2.4-9 for typical shock pulses.

Photo 5.2.4-1: X-axis shock setup

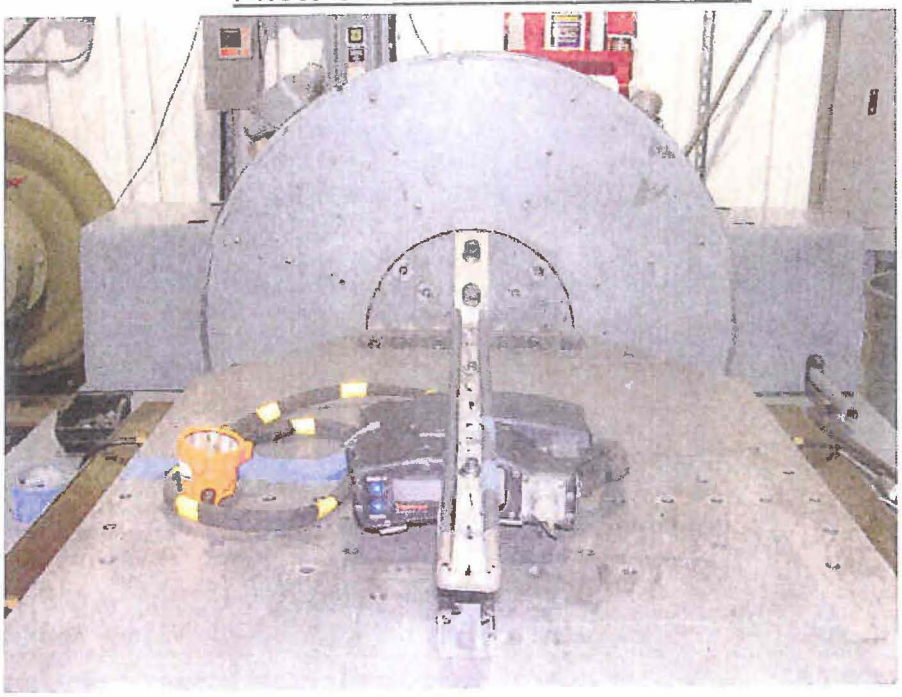


Photo 5.2.4-2: Y-axis shock setup

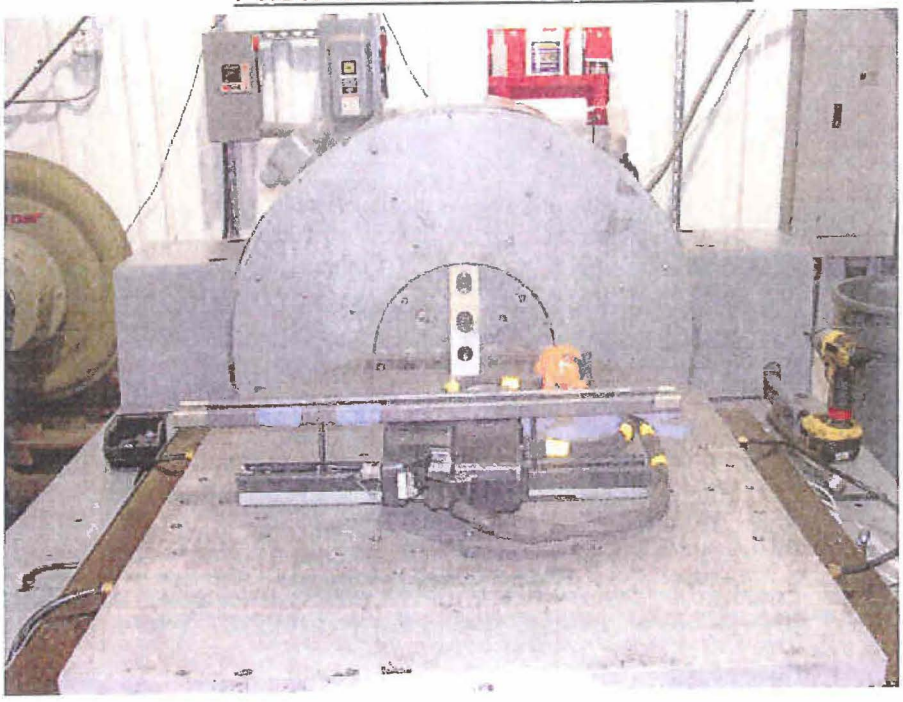


Photo 5.2.4-3: Z-axis shock setup

Chart 5.2.4-4: Typical positive shock pulse in X-axis

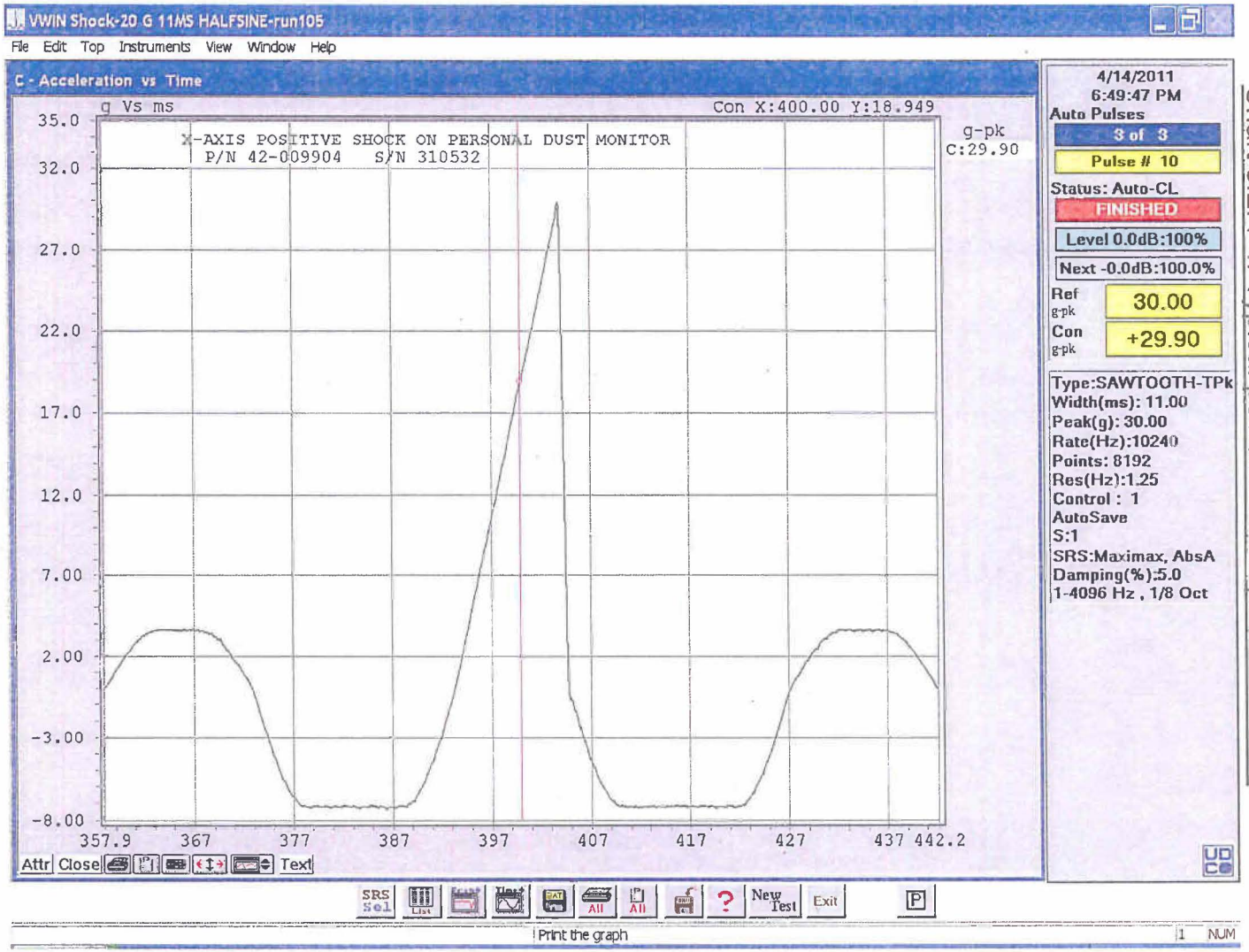
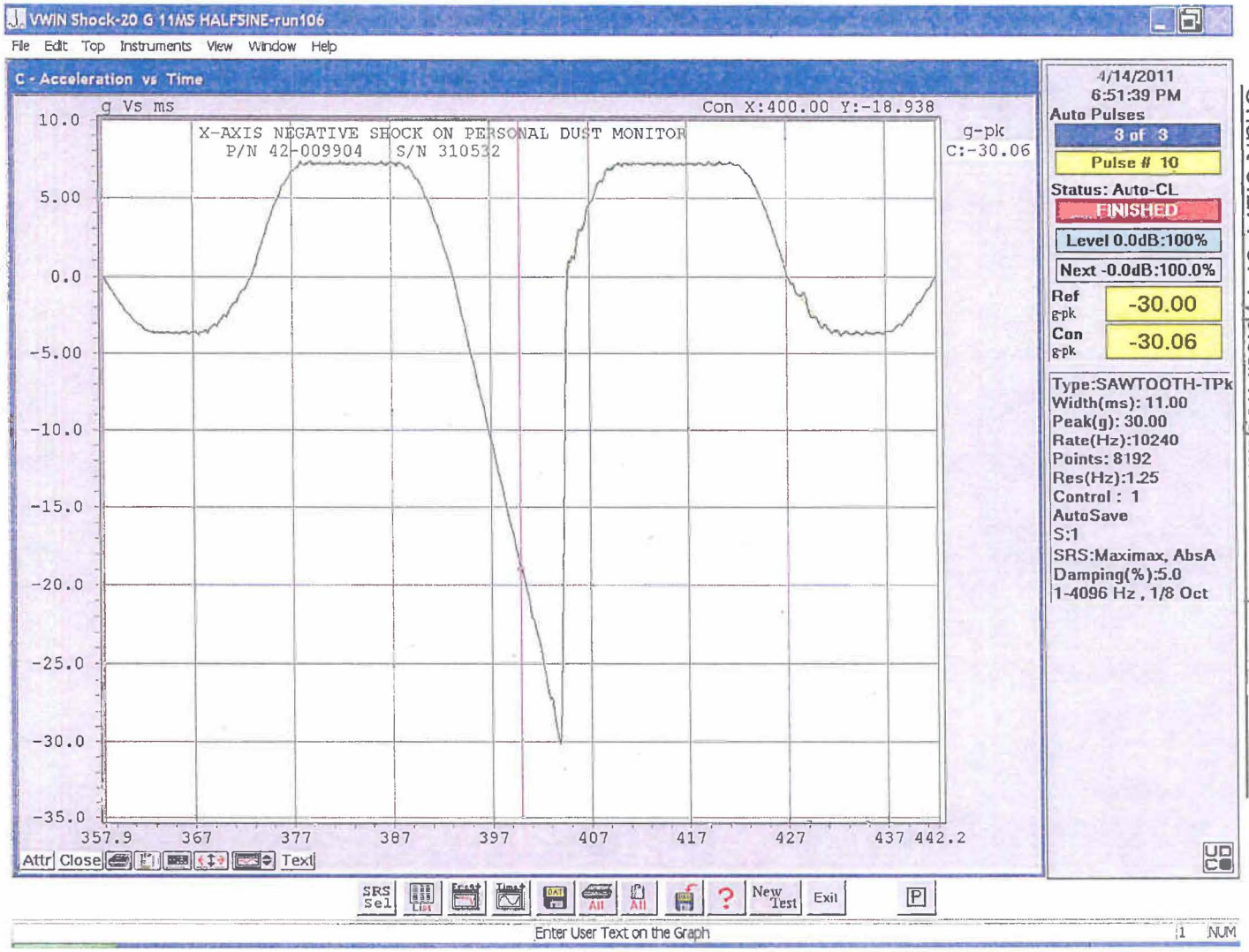


Chart 5.2.4-5: Typical negative shock pulse in X-axis



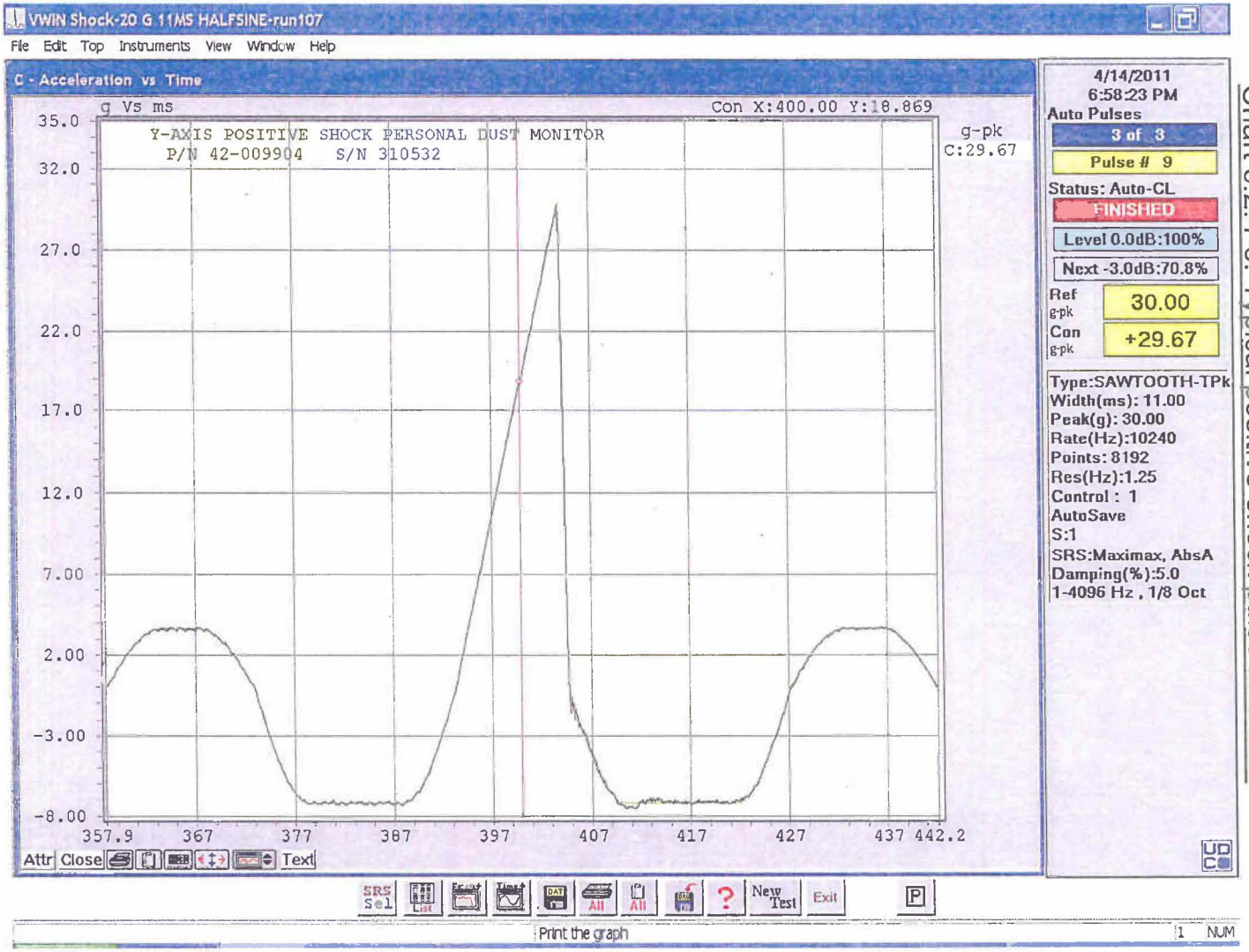



Chart 5.2.4-6: Typical positive shock pulse in Y-axis

Chart 5.2.4-7: Typical negative shock pulse in Y-axis

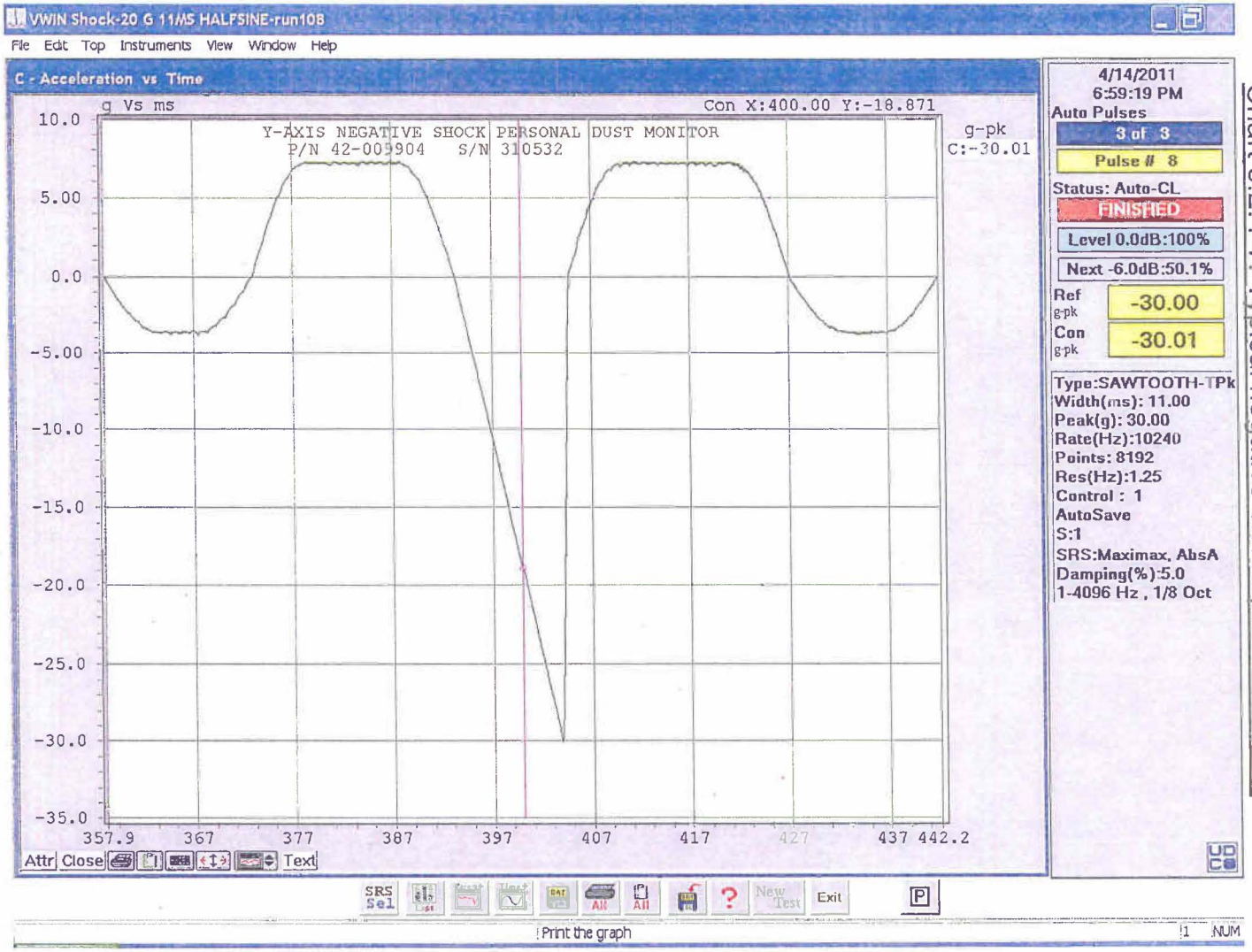


Chart 5.2.4-8: Typical positive shock pulse in Z-axis

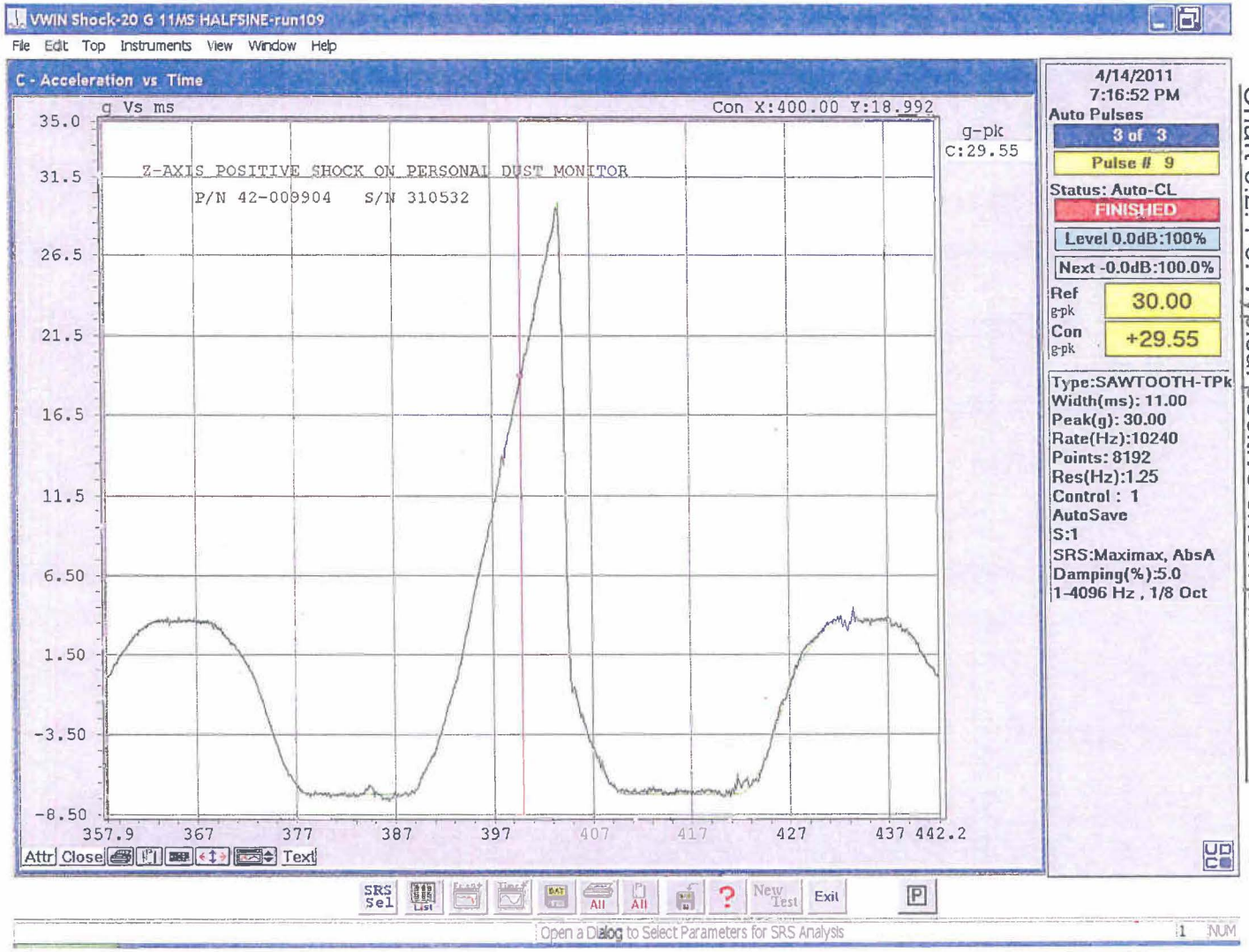
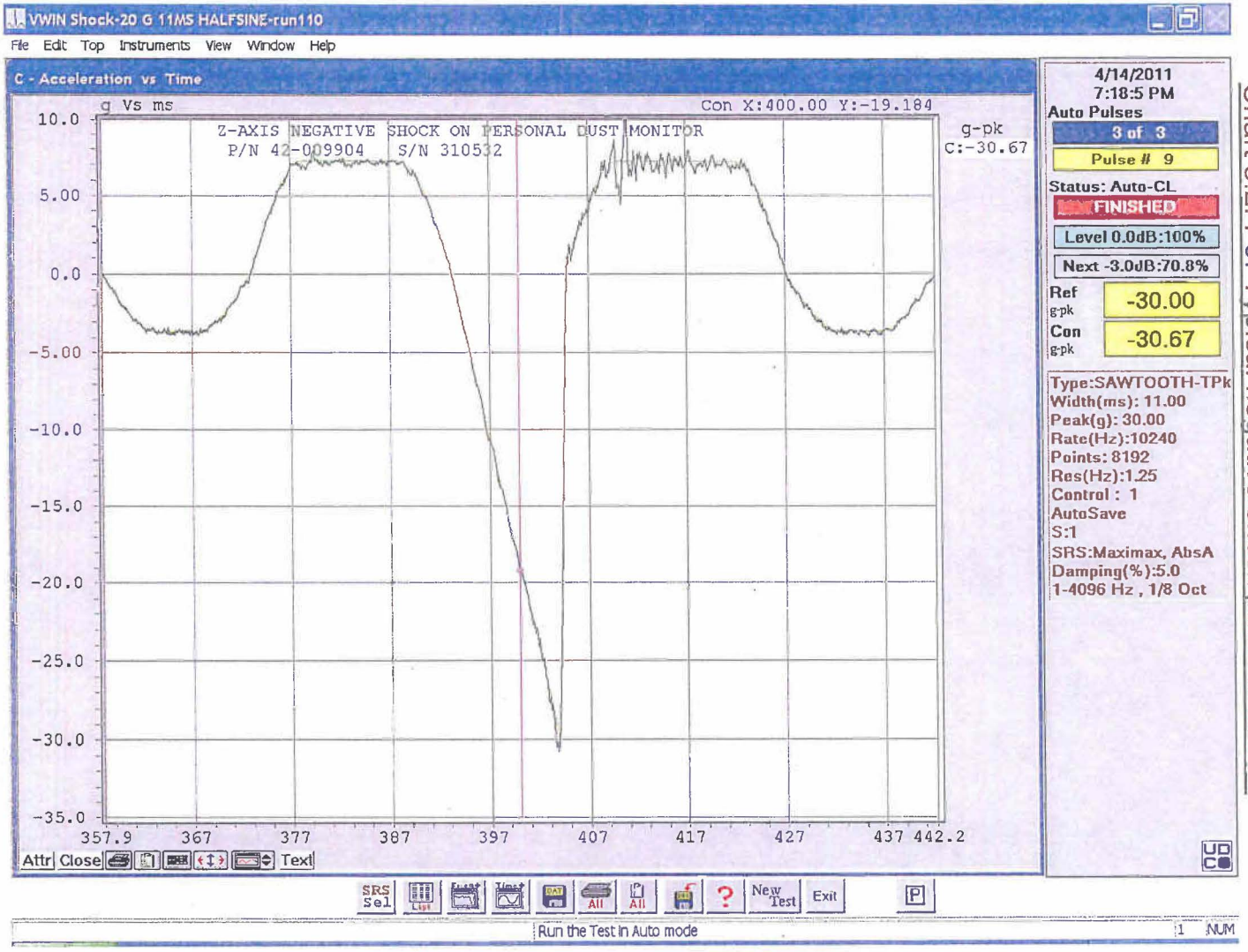


Chart 5.2.4-9: Typical negative shock pulse in Z-axis



## 5.2.5-Radiaited Suseptability-RS103

### Parameters

A) Frequency Band: 200 MHz to 1 GHz

B) Field Strength: 1watts/meter to 10 watts/meter

C) Antenna type: Bilogical Antenna

D) Direction: Horizontal

Step 1) The EUT #1 was put into the operational configuration 1 meter away from the antenna.

Step 2) The signal generator was connected to the power amplifier which was connected to the transmit antenna that was positioned in front of the EUT #1.

Step 3) The field probe was positioned on top of the EUT #1 which was connected to the field meter and data acquisition system.

Step 4)The signal was swept from 200 MHz to 1 GHz at 5 ±1 watts/meter in 100 kHz steps in the horizontal position.

Step 5) The antenna was moved .5 meters away from the EUT.

Step 6) The sweep was performed again at the following conditions:

200 MHz to 207 MHz at 10 watts
207 MHz to 227 MHz at 3.2 to 9 watts accordingly
227 MHz to 451.9 MHz at 10 watts

Step 7) At 451.9 MHz the EUT shut off, customer reset EUT to resume testing.

Step 8) Restarted sweep at 451 MHz to 455 MHz at 10 watts, stopped sweep due to change in motor tone on EUT.

Step 9) Restarted sweep at 580 MHz and continued to 1 GHz at 10 watts.

Step 10) Started sweep from 580 MHz to 451 MHz at 10 watts, motor on EUT stopped at 532.2 MHz at 10 watts.

Step 11) Adjusted power down to 8.3 watts at 532.2 MHz and motor started again on EUT.

Step 12) Ran the following threshold test to see where the tone of the motor changed, this was performed by starting at 5 watts and increasing till the motor starting changing tones (or 10 watts maximum) and then backing off on gain until tone returned:

| *Frequency (Hz)* | *Level at which motor changed tone (watts)* |
|---|---|
| 531.3 | 9.4 |
| 531.1 | 9.0 |
| 511.0 | 6.0 |
| 491.9 | 6.5 |
| 471.0 | 7.0 |
| 451.0 | 9.2 |
| 431.0 | 10.0 (no change) |
| 411.0 | 10.0 (no change) |

See photos 5.2.5-1 thru 5.2.5-3 for setup.

Photo 5.2.5-1: EUT setup

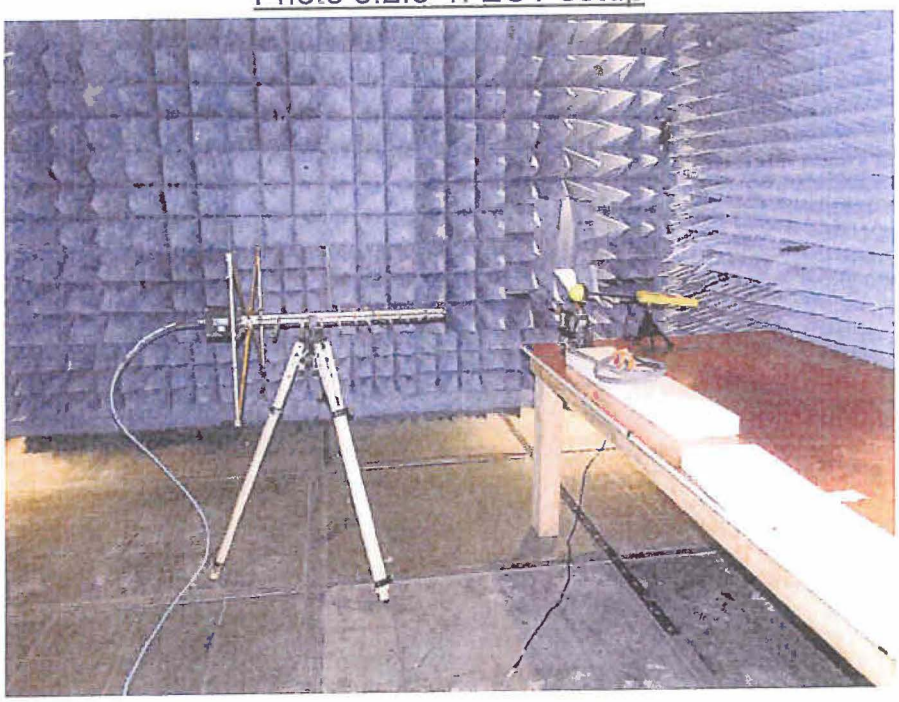


Photo 5.2.5-2: EUT setup

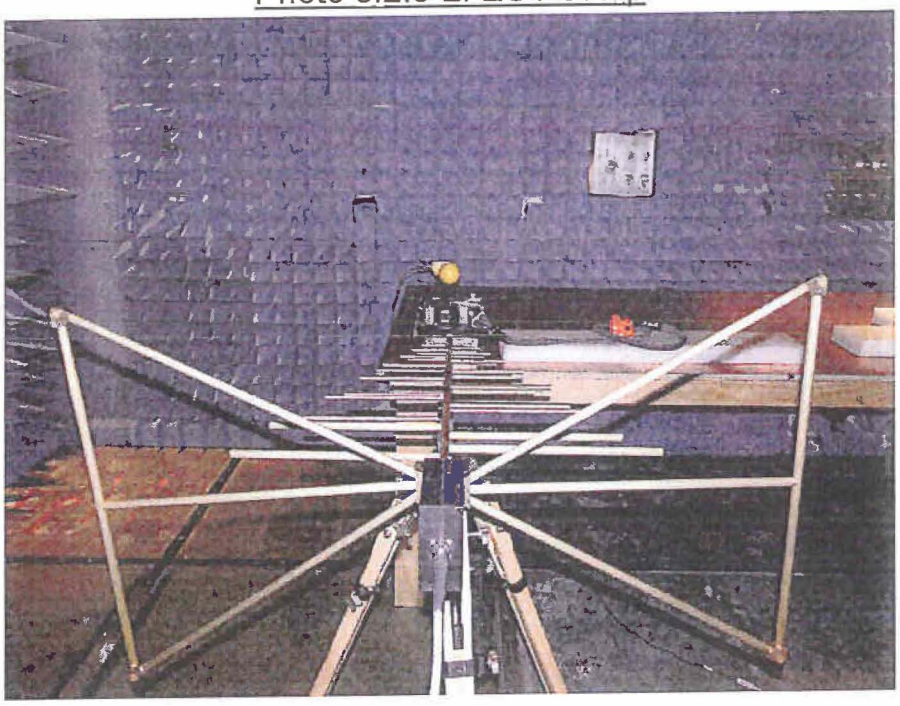
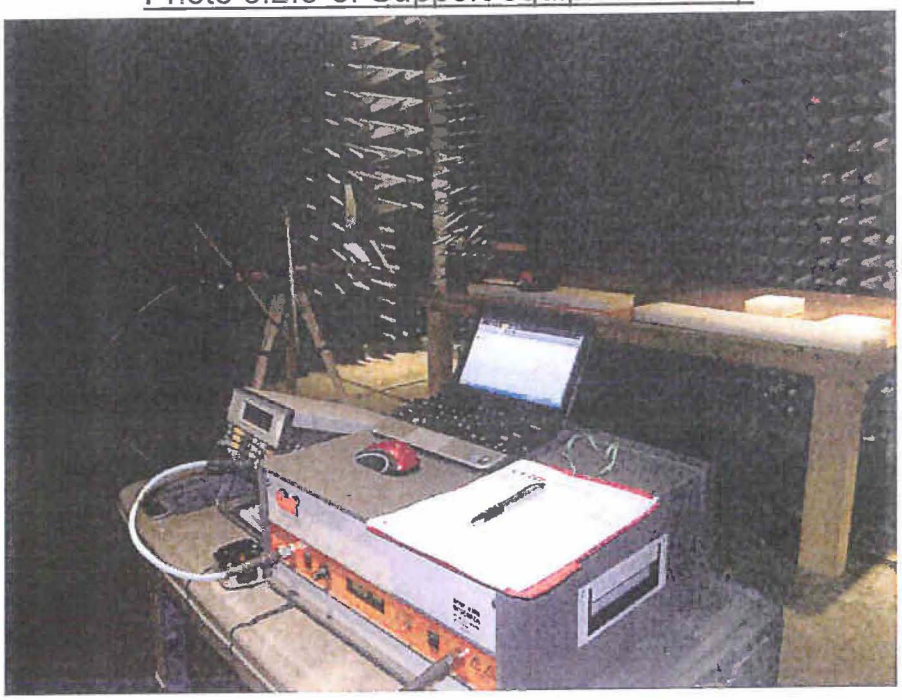


Photo 5.2.5-3: Support equipment setup



## 6. ACCEPTANCE CRITERIA

The testing was for engineering purpose and was not designed for pass/fail criteria.

## 7. TEST RESULTS

Refer to the test summary, Table ES-3 and section 5.2 at the beginning of this document for a summary of results.

Operational characteristic were continually performed by the customer.

## 8. TEST MODIFICATIONS

As noted.

## 9. TEST ITEM DISPOSITION

All test items were returned to Exponent Failure Analysis Associates.

## 10. PERSONNEL

Nick Brady
Doug Hall
Josh Tomarchio

## 11. REPORT DISTRIBUTION

Exponent Failure Analysis Associates
149 Commonwealth Drive
Menlo Park, CA 94025

E-LABS Job Number 2341-B File

END OF REPORT

**R.T. Vanderbilt Company, Inc.**
INDUSTRIAL MINERALS AND CHEMICALS

30 WINFIELD STREET, P.O. BOX 5150, NORWALK, CONNECTICUT 06856-5150 • (203) 853-1400
Fax (203) 853-1452 • Internet Address: www.rtvanderbilt.com

# Specification

## VANTALC® 6H-II

March 25, 2005

RTV Product Code: **69652**
Composition: Magnesium silicate hydrate
Physical State: White powder

| | Specification | Test Method |
|---|---|---|
| *Dry Brightness, | 89 minimum | MB-A-120 |
| *Hegman Fineness | 6.5-7.0 | MG-T-100 |
| *Moisture Content | 0.5% maximum | MW-F-111 |
| *Average Particle Size | 0.8-1.3 microns | MS-S-154 |

## GENERAL INFORMATION

Typical values not routinely measured or reported on the Certificate of Analysis.

| | |
|---|---|
| Density at 25°C | 2.8 $Mg/m^3$ |
| pH | 8.8 |
| Oil Absorption | 60 |
| Apparent Density | 6.4 lb / cu ft |
| Tapped Density | 22 lb / cu ft |

*Certified Property

*Uses - Effective for gloss control, especially where film smoothness and pigment suspension are important.*

Standard Container - 50 pound multi-wall paper bag

The information presented herein, while not guaranteed, was prepared by technical personnel and, to the best of our knowledge and belief, is true and accurate as of the date hereof. No warranty, representation or guarantee, express or implied, is made regarding accuracy, performance, stability, reliability or use. This information is not intended to be all-inclusive, because the manner and conditions of use, handling, storage and other factors may involve other or additional safety or performance considerations. The user is responsible for determining the suitability of any material for a specific purpose and for adopting such safety precautions as may be required. R.T. Vanderbilt Company does not warrant the results to be obtained in using any material, and disclaims all liability with respect to the use, handling or further processing of any such material. No suggestion for use is intended as, and nothing herein shall be construed as, a recommendation to infringe any existing patent or to violate any federal, state or local law or regulation.

Forensic Analytical Laboratories

**Final Report**

# Gravimetric Analysis of Air Filters

Exponent
Sheila McCarthy
500 12th Street
Suite 220
Oakland, CA 94607

**Client ID:** L1041
**Report Number:** M118746
**Date Received:** 04/15/11
**Date Analyzed:** 04/15/11
**Date Printed:** 04/15/11
**First Reported:** 04/15/11

**Job ID / Site:** 1007321.000 FOTO
**Date(s) Collected:** 4/11/2011

**FALI Job ID:** L1041
**Total Samples Submitted:** 8
**Total Samples Analyzed:** 8

| Sample Number | Lab Number | Volume | Analyte | Result | Result Units | Reporting Limit* | Method Reference |
|---|---|---|---|---|---|---|---|
| 1-079448 | 30399690 | 120 L | Dust | 3.6 | mg/m3 | 0.5 | NIOSH 500/600 |
| 2-079450 | 30399691 | 56 L | Dust | 2.3 | mg/m3 | 0.9 | NIOSH 500/600 |
| 3-079447 | 30399692 | 124 L | Dust | 9.3 | mg/m3 | 0.5 | NIOSH 500/600 |
| 4-079503 | 30399693 | 128 L | Dust | 0.6 | mg/m3 | 0.4 | NIOSH 500/600 |
| 5-079459 | 30399694 | 126 L | Dust | 2.1 | mg/m3 | 0.4 | NIOSH 500/600 |
| 6-079456 | 30399695 | 128 L | Dust | 1.0 | mg/m3 | 0.4 | NIOSH 500/600 |
| 7-079461 | 30399696 | 120 L | Dust | 2.0 | mg/m3 | 0.5 | NIOSH 500/600 |
| 8-CTRL | 30399697 | NA | Dust | < 0.05 | mg | 0.05 | NIOSH 500/600 |

* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.

Dave Sandusky, CIH, Laboratory Supervisor, Hayward Laboratory

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