Run Summary

American Eagle Paper Mill, Tyrone, PA

PM # 3

Feb 06, 2013

VenPap

Report made on Feb 07, 2013

Paper grade: #61

Notes:

Speed of the machine kept at 1497.3 ft/h and not changed throughout the run of VenPap.
Paper weight varying 55.6-54.5 Lbs/Rm.
Stock Flow varying 1081.7-1026.1 GPM.
Pressure to the main steam dryer section on automatic mode.

Time taken: **13:44**

Main Section Steam Pressure: **65 PSI**

VenPap System **NOT** running, vacuum pump running.

Visible: High Main Section Steam Pressure.

One hour and 10 minutes after start of Venpap System.

Time taken: **14:55**

Main Section Steam Pressure: **63.2 PSI**, Raw Moisture: **1.6** %.

VenPap System running, **valve to the vacuum pump closed**, **vacuum pump shut down**

Visible: Steam pressure and moisture are dropping.

2 hours and 16 minutes after start of Venpap System.

Time taken: **16:01**

Main Section Steam Pressure: **61.4 PSI,** Raw Moisture: **1.8** % (set point 2.0).

VenPap System running, **valve to the vacuum pump closed**, **vacuum pump shut down**

Visible: Steam pressure and moisture are dropping.

3 hours and 27 minutes after start of Venpap System.

Time taken: **17:12**

Main Section Steam Pressure: **59.1PSI.**

VenPap System running, **valve to the vacuum pump closed**, **vacuum pump shut down**

Visible: Steam pressure dropping.

4 hours and 21 minutes after start of Venpap System.

Time taken: 18:06

Main Section Steam Pressure: **58.3PSI**

VenPap System running, valve to the vacuum pump closed, vacuum pump shut down

Visible: Steam pressure still dropping.

5 hours and 22 minutes after start of Venpap System.

Time taken: 19:07

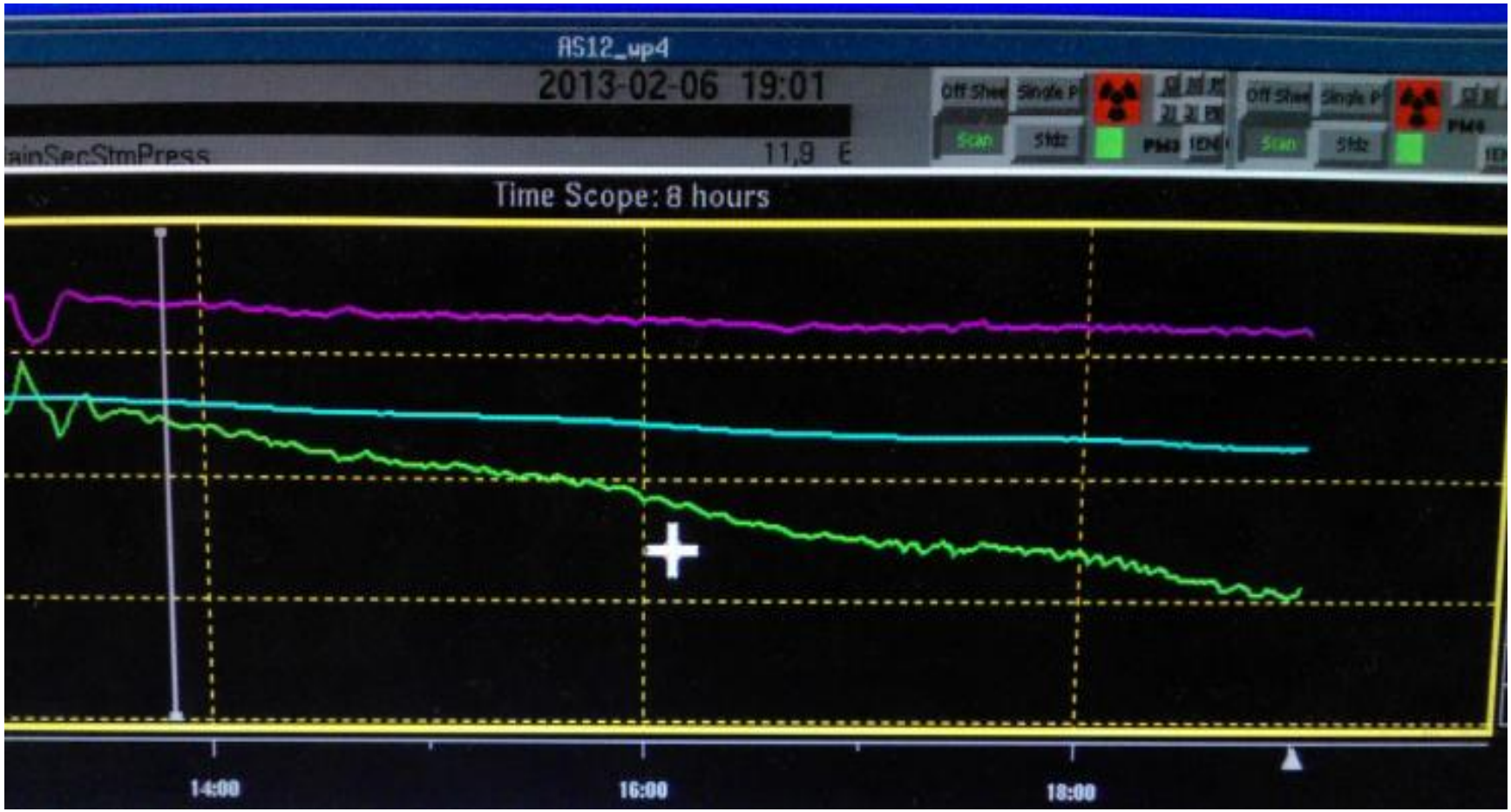
Main Section Steam Pressure: **56.5PSI**

VenPap System running, **valve to the vacuum pump closed**, **vacuum pump shut down**

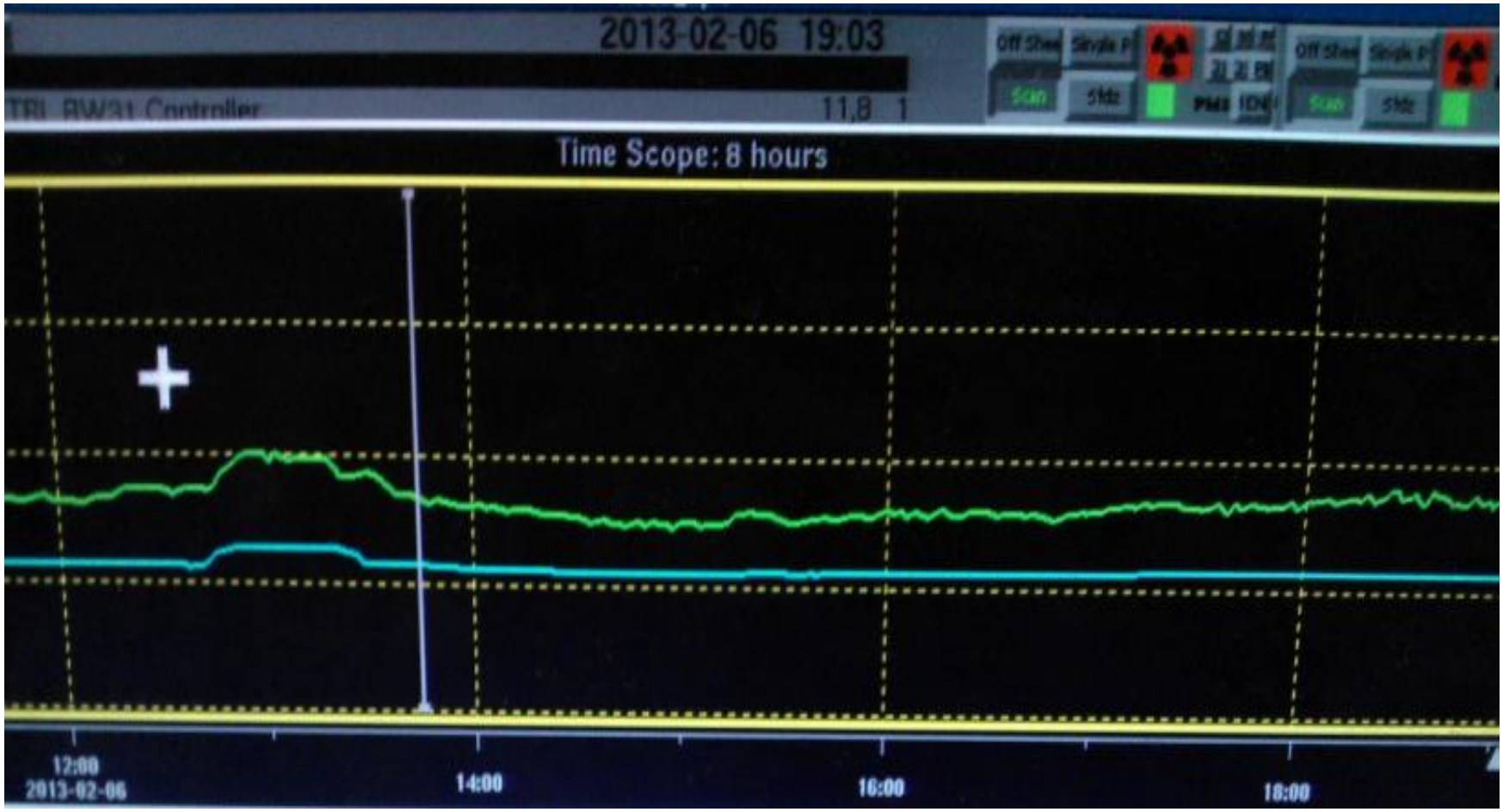
Visible: Pressure to the main steam section decreasing.

Time taken: 19:01

Visible: **Steady drop in pressure on automatic mode of the main steam section throughout the run of Venpap System** (from 65 to 56.5 PSI)

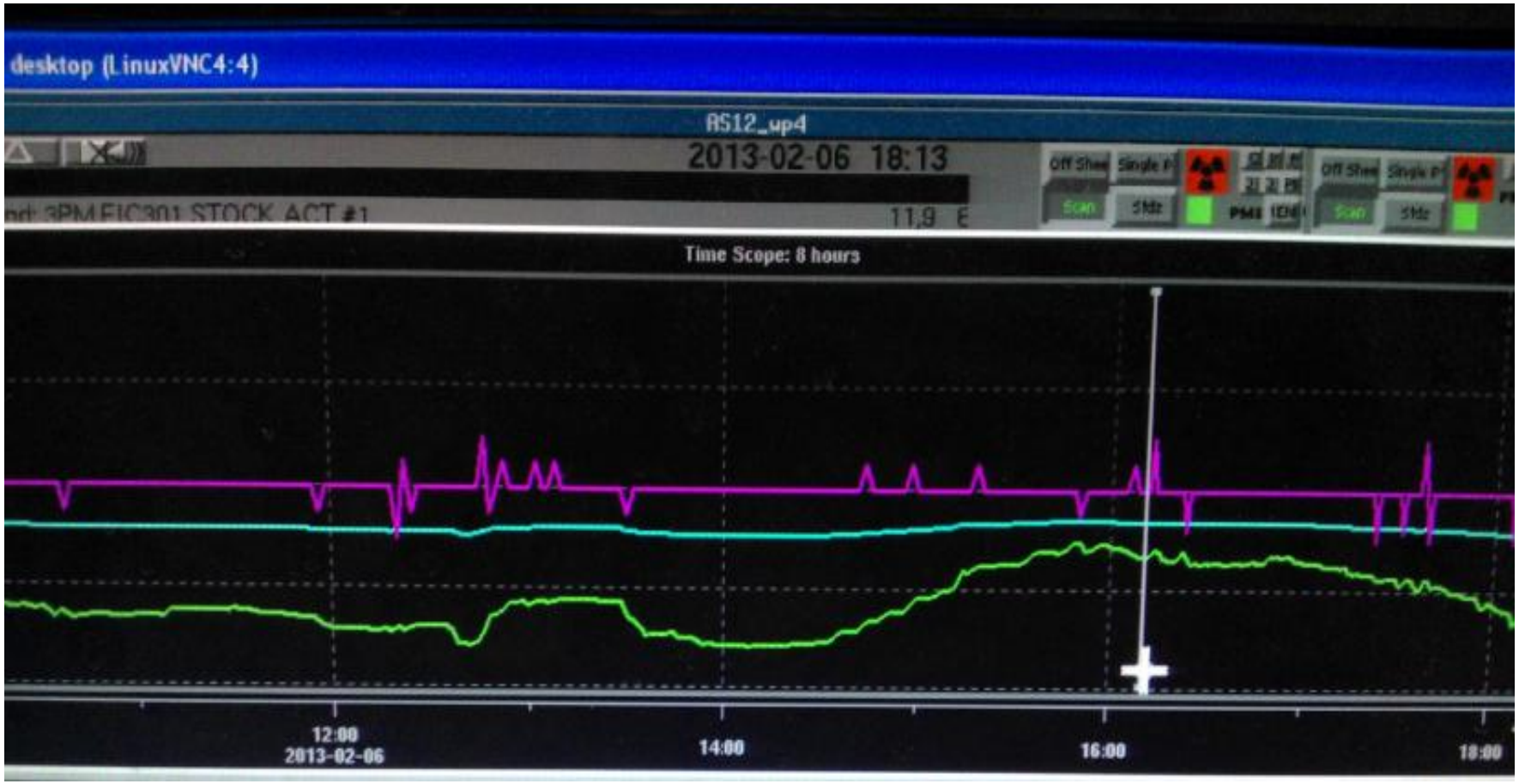


Time taken: 19:03
Venpap System running, **vacuum pump shut down**
Visible: Trend of the weight throughout the run.



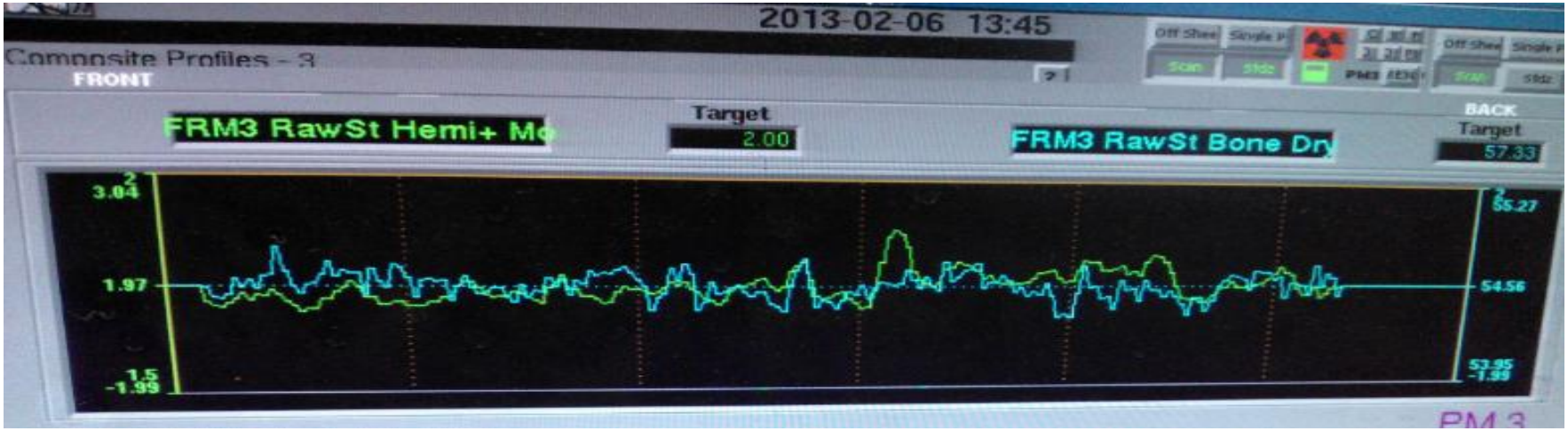
Time taken: 18:13

Visible: Even though there was an Increase in stock flow, the pressure to the main steam section kept on dropping with Venpap System running.

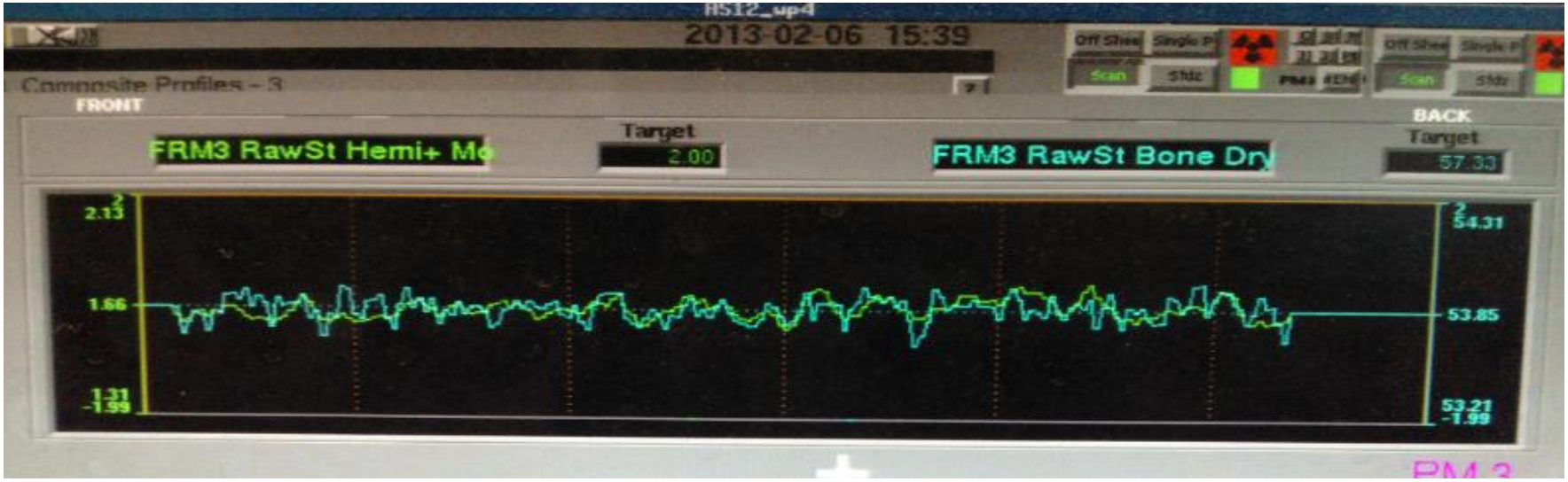


Comparison of the moisture profiles (RAW) before and after Venpap System.

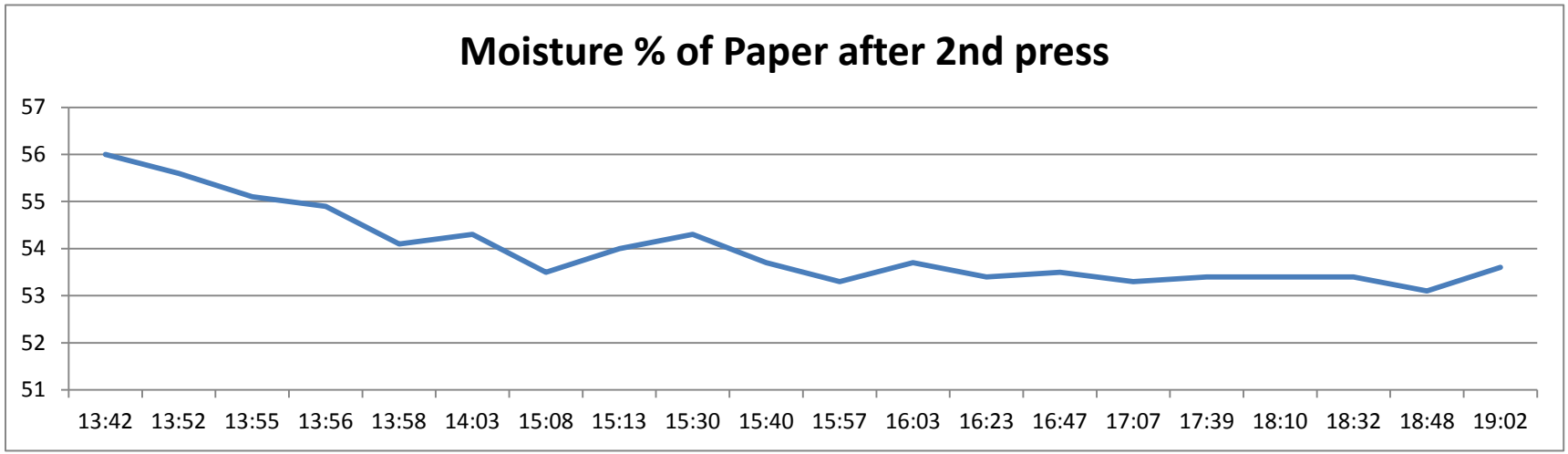
BEFORE:



AFTER:



American Eagle Paper Mill, PM#3, Feb 06,2013.



Brief summary of the run

- On the day of Feb 06, 2013 performed a test with VenPap system for PM#3.
- Paper produced during the test: American Eagle index # 61.
- Measured the moisture in the felt and paper after press section and controlled all relevant parameters of the PM.
- Between 13:45 – 19:30, VenPap System was running at 75% of its capacity (pressure steam to the system was at 125 PSI with it being capable of reaching maximum 175 PSI capacity).
- The valve of the vacuum pump NASH 2001 during the test was closed - Venpap system was running without the vacuum pump.
  The saving in electricity is at least 75HP + other costs related to the vacuum pump.
- Noticed the improvement in moisture of the paper, profile moisture and steam used:
  - steam pressure to the dryer section after the thermocompressor dropped from 65 to 56.5 PSI
  - moisture of paper after 2nd press dropped at least 2% (from 56% to 53.6%).
  Lower moisture after press section of 2% means the saving of the steam in the dryer section of at least 2% times 4 = 8% used steam.
- The profile of the moisture is significantly more stable.
  Lower variance of the moisture profile means better paper quality.

TEAM TEN LLC

By Scott Ogle

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VENPAP

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