

SIMPLIFIED PROBE CARD CLEANING

Water Based Cleaning Method

TEST PLAN

- ◆ Control Sample
 - No Cleaning, Test 75 Times
- ◆ Wet Cleaning
 - Ultrasonic Clean, Test 10 Times
- ◆ Abrasive Cleaning
 - Sand Only, Test 10 Times
- ◆ Abrasive & Wet Cleaning
 - Test 10 Times

SANDING SURFACE

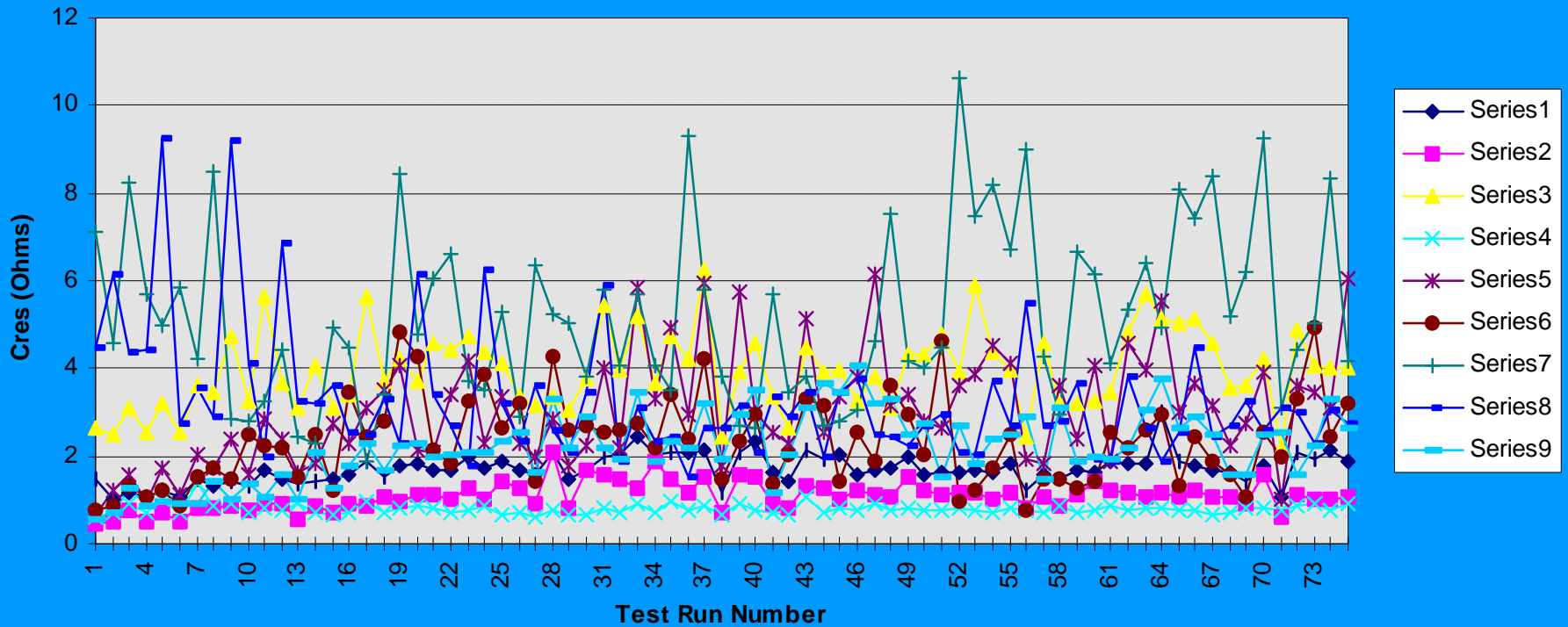
- ◆ Tungsten Carbide
 - DU2 Carbide (C-2 Grade)
 - 10 Micron Dull Lap
 - 8-RMS or Better

WET CLEAN PROCESS

- ◆ Mix Cleaning Solution
 - Micro, by International Products Corporation
 - De-ionized Water
- ◆ Ultrasonic Tips or Entire Card, 5-15 Min.
- ◆ Rinse with De-ionized Water
- ◆ Blow Dry with CDA or N2
- ◆ Air Bake @50 C for 15-30 Min.

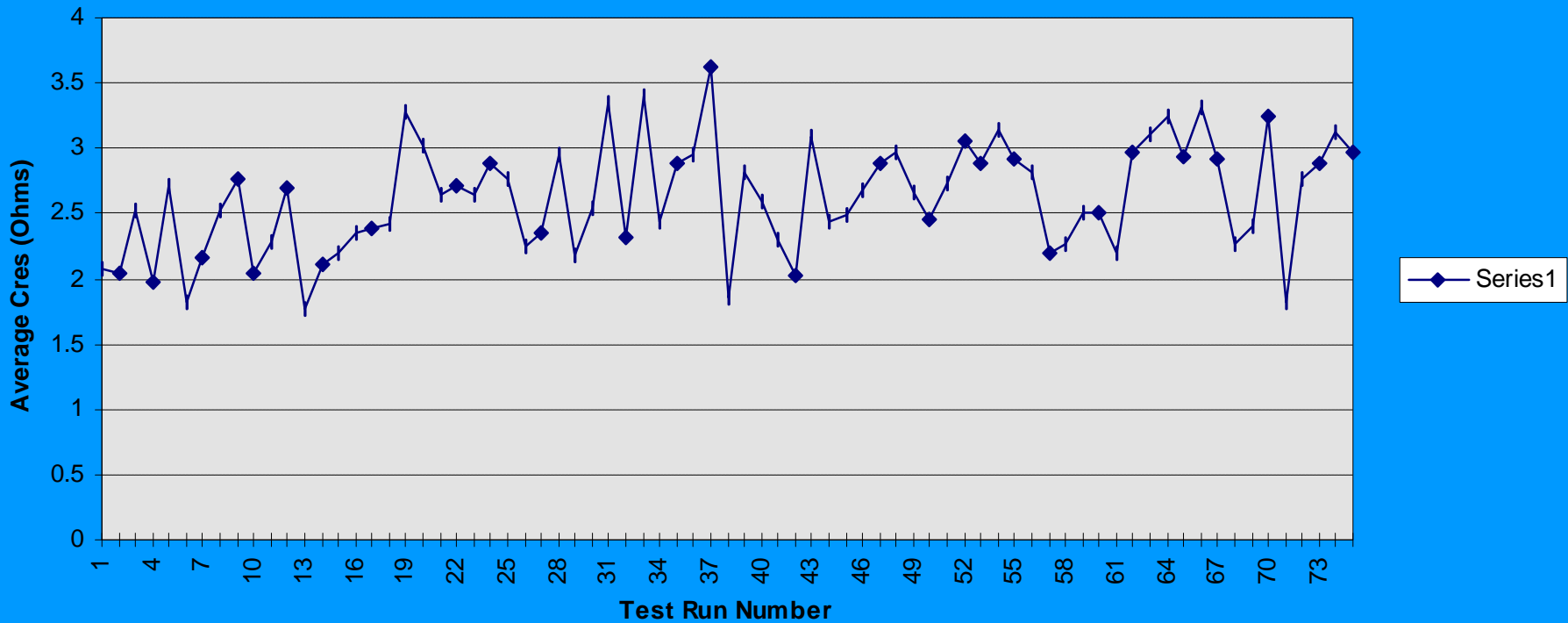
CONTROL SAMPLE (1)

Control Sample, Initial Test

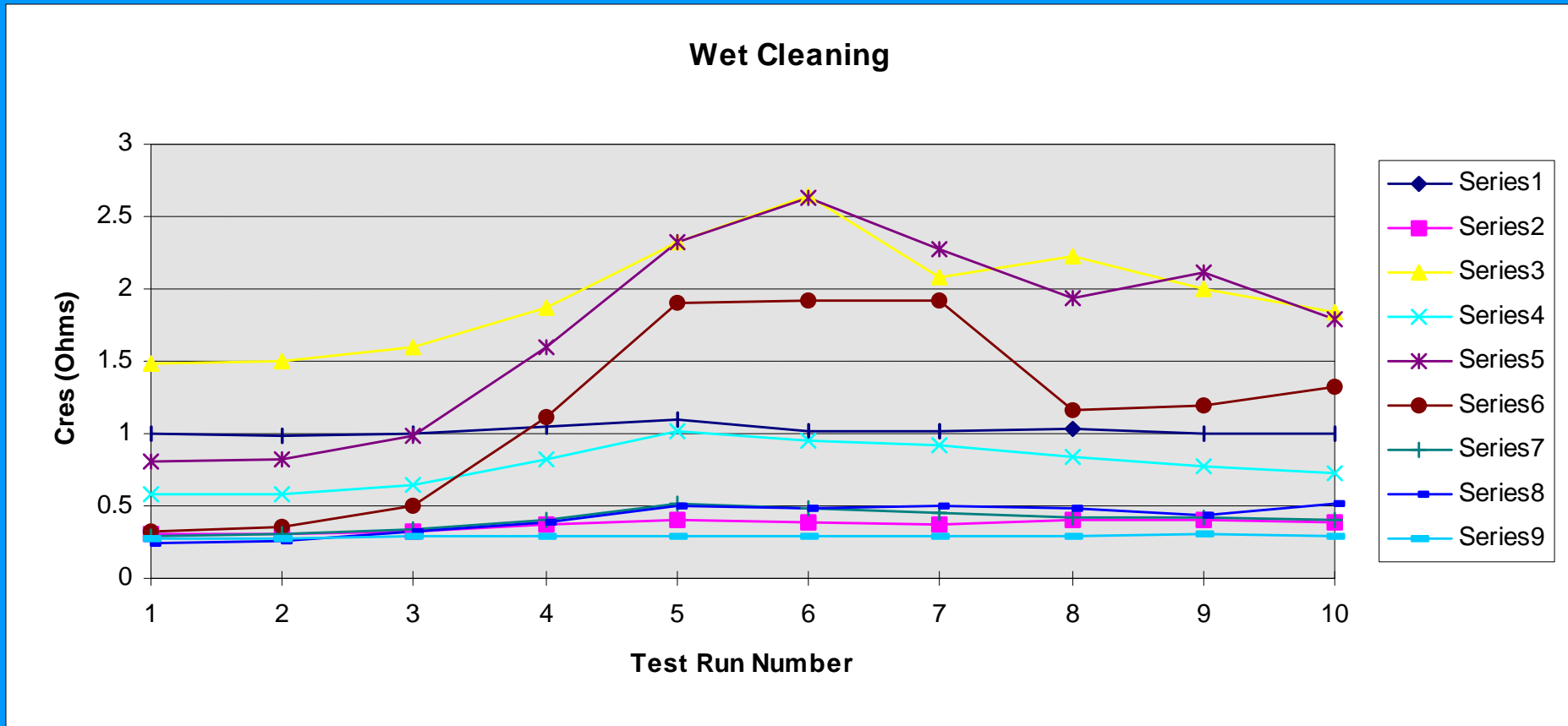


CONTROL SAMPLE (2)

Control Sample, Initial Test

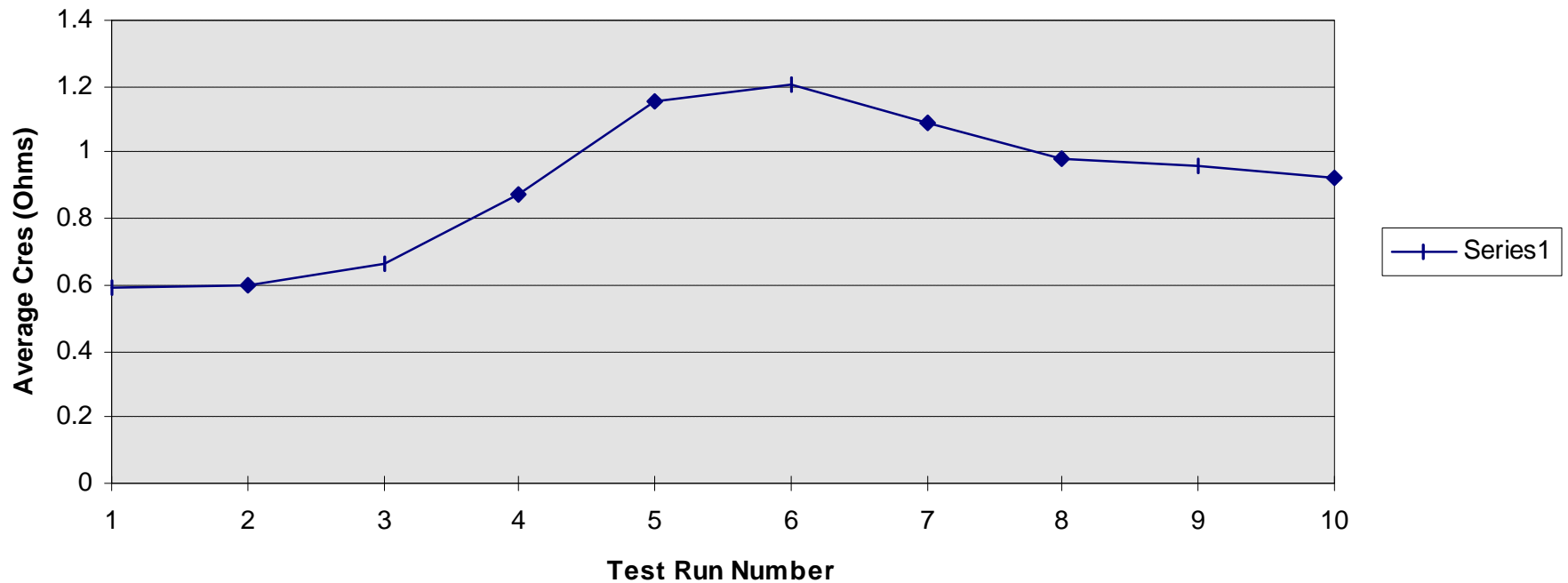


WET CLEANING (1)



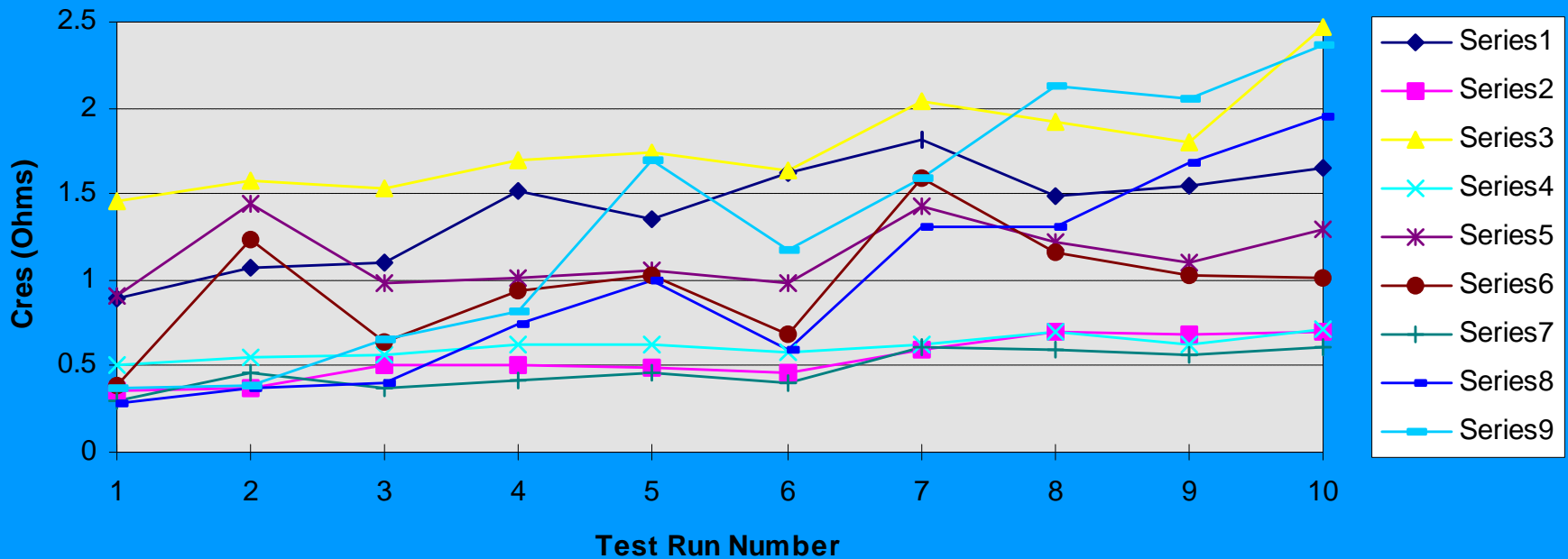
WET CLEANING (2)

Wet Cleaning



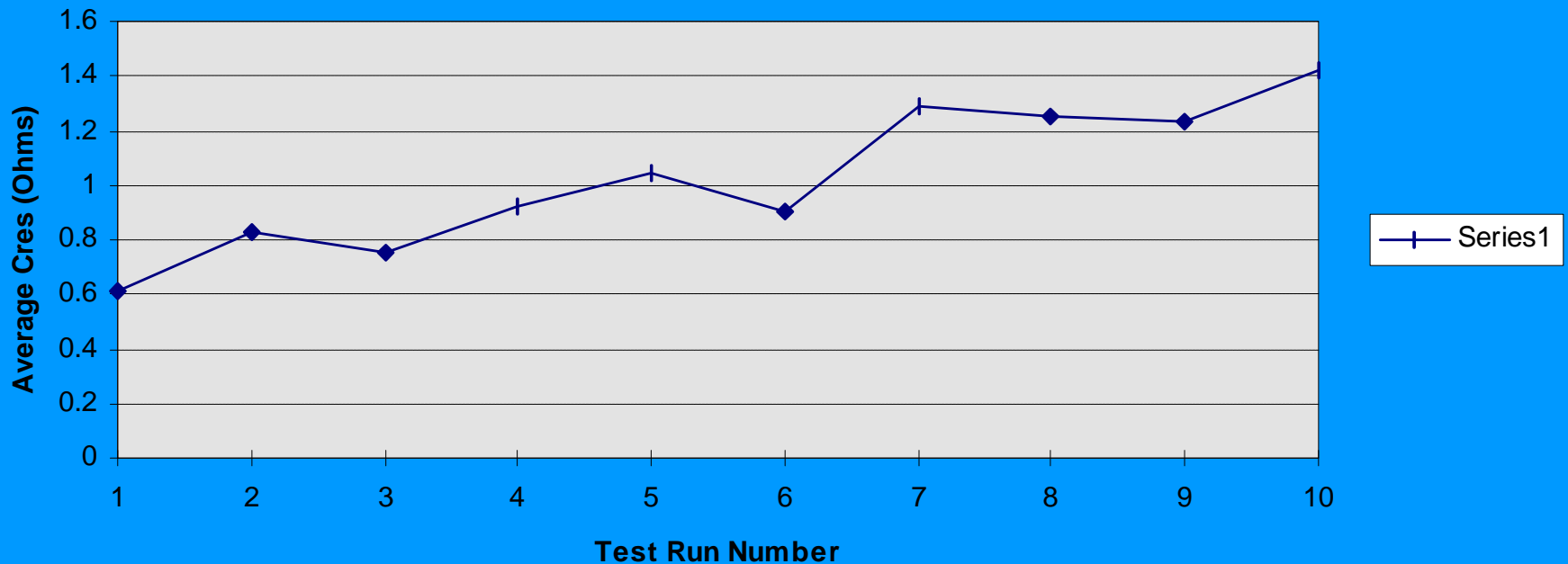
ABRASIVE CLEANING (1)

Abrasive Cleaning



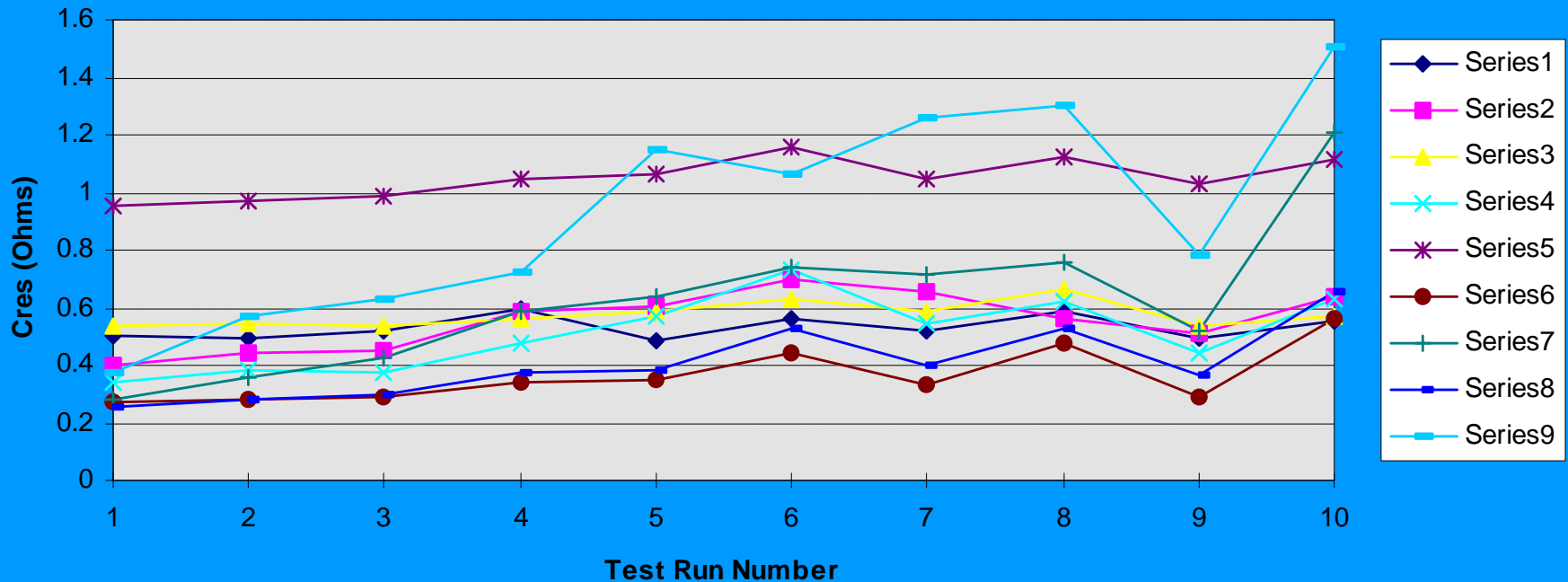
ABRASIVE CLEANING (2)

Abrasive Cleaning



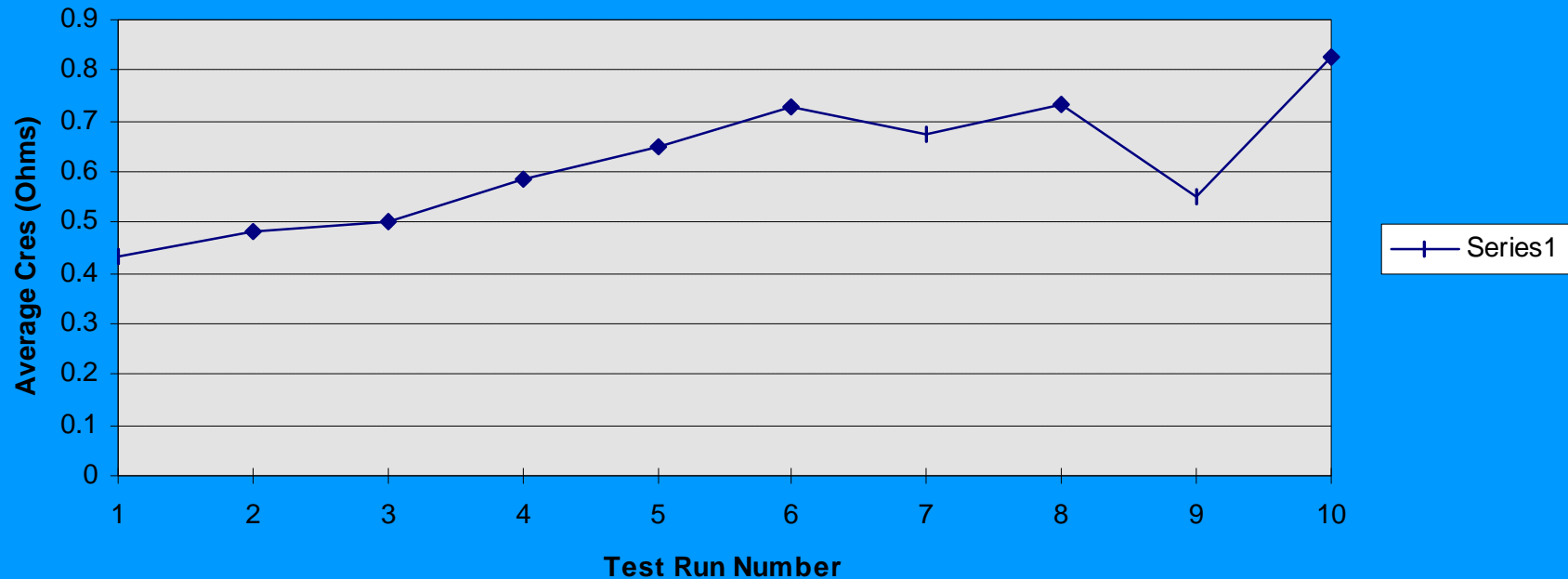
ABRASIVE + WET CLEANING (1)

Abrasive + Wet Clean



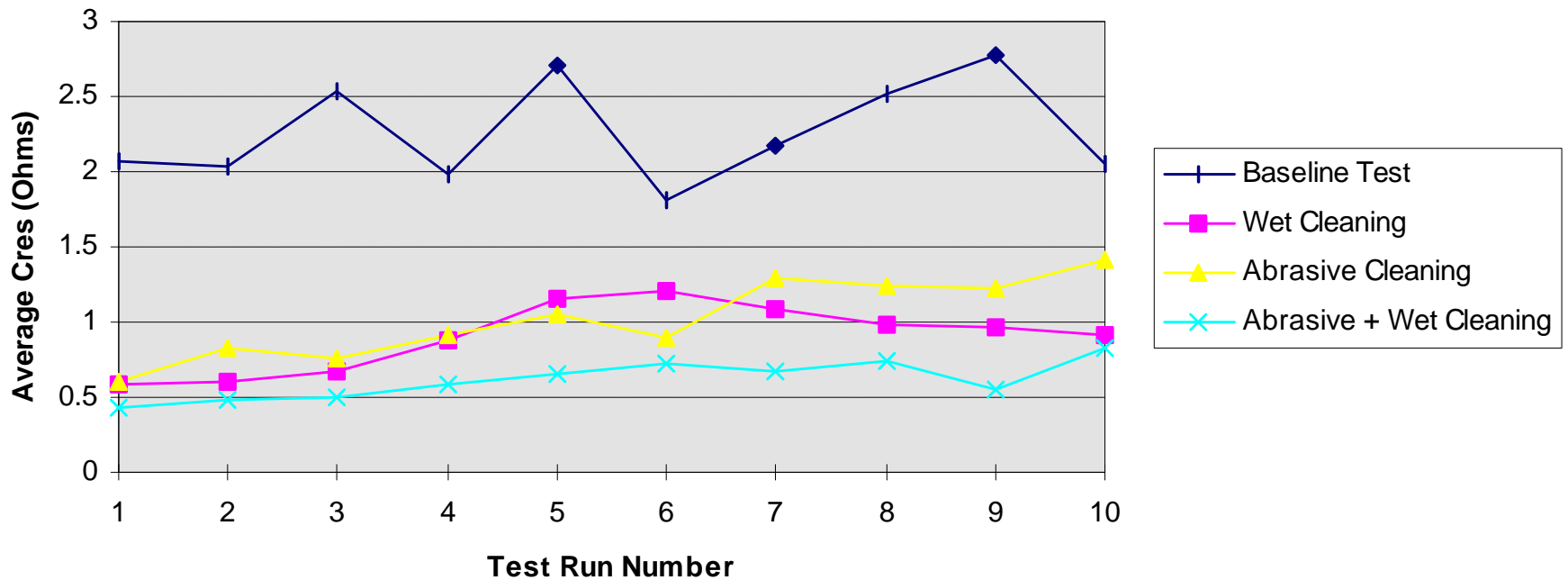
ABRASIVE + WET CLEANING (2)

Abrasive + Wet Cleaning



SUMMARY, ALL METHODS

Average Cres for Wet/Abrasive Cleaning



CONCLUSIONS

◆ Wet Cleaning

- As Good As or Better Than Sanding
- No Probe Wear

◆ Sanding

- Looks Good Initially, but Cres Degrades