CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2002
DateRun:	01/13/2002
Experimenters:	Jason Marshall
ClientType:	Coatings Manufacturer
ProjectNumber:	Project #1
Substrates:	Paper
PartType:	Part
Contaminants:	None
Cleaning Methods:	
Analytical Methods:	Goniometry
Purpose:	Contact angle goniometery measurements
Experimental Procedure:	Two supplied papers were cut into 2" x 4" samples and clamped to aluminum coupons of same size. Each sample was analyzed using laser contact goniometery. A 2 microliter drop of DI water was placed on the surface of the sample with the syringe. The sample was positioned with the control knobs so that the laser skims over the surface of the sample and through the location where the water droplet meets the sample surface. Two lines should appear on the measurement card. The angle between these two lines is the angle of contact between the water droplet and the sample. Two contact angle measurements were made per sample. Sample 1: Norpel 7624 Sample 2: Cartafluor UHC
Results:	A total of 5 Norpel and 3 Cartafluor samples were analyzed using contact angle goniometry. From the measured angles, it was found that Norpel had an average contact angle of 68.3 while the Cartafluor had an average of 53. Table 1 lists the individual measurements for both paper samples.

Table 1. Contact Angle Measurements

Norpel 7624	
1	48
1a	
2	80
2a	72
3	80
3a	54
4	64
4a	66
5	73
5a	68
Average	68.3
Cartafluor UHC	
1	49
1a	48
2	61
2a	59
3	48
Average	53

Summary:	
Conclusion:	With the higher contact angle Norpel would appear to be more water resistant than the Cartafluor.