# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2002

DateRun: 02/07/2002

Experimenters: Heidi Wilcox

ClientType: Lab

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Lubricating/Lapping Oils

Cleaning Methods: Media Blasting

Analytical Methods: Visual

Purpose: Laboratory evaluations of alternative cleaning products

Experimental Procedure: Basic cleaning performance testing was conducted using ASTM G122 as the bases for cleaning.

Cleaning: Blast coupon with CO2 crystals ~ (-109 F) at varying flow rates in room temp ~ 68 F. Bursts were 2 seconds each, 3 per coupon in a sweeping motion. Gun was aimed at coupon, perpendicular to surface.

Contaminant: Oil - WD - 40 Company, WD 40 oil/lube petroleum distillate (8052-41-3 50, 68476-85-7, 64742-65-0)

Results:

Summary:

| **Substrates:** | Stainless Steel | | | | |
|---|---|---|---|---|---|
| **Contaminants:** | Lubricating/Lapping Oils | | | | |
| **Company Name:** | **Product Name:** | **Conc.:** | **Efficiency:** | **Effective:** | **Observations:** |
| Applied Surface Technologies | CO2 Snowflakes, Low Flow | 100 | 7.25 | ☐ | Low flow |
| Applied Surface Technologies | CO2 Snowflakes, Medium Flow | 100 | 26.71 | ☐ | Medium flow |
| Applied Surface Technologies | CO2 Snowflakes,High Flow | 100 | 34.24 | ☐ | High flow |
| Applied Surface Technologies | CO2 Snowflakes, Low Flow | 100 | 13.17 | ☐ | Low flow, flakes |
| Applied Surface Technologies | CO2 Snowflakes, Medium Flow | 100 | 22.51 | ☐ | Medium flow, flakes |
| Applied Surface Technologies | CO2 Snowflakes,High Flow | 100 | 35.36 | ☐ | High flow, flakes |
| Applied Surface Technologies | CO2 Snowflakes, Low Flow | | | ☐ | |
| Applied Surface Technologies | CO2 Snowflakes, Medium Flow | | | ☐ | |
| Applied Surface Technologies | CO2 Snowflakes,High Flow | | | ☐ | |

Conclusion: None of the flow rate, delivery combinations with the CO2 snow gun were effective. An increase in effectiveness was an increase in flow rate of the CO2 with both the crystal producing nozzles and the flake producing adapter and tube.