CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2012

DateRun: 09/03/2012

Experimenters: Jason Marshall

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Coupon

Contaminants: Dirt, Oxides

Cleaning Methods: Manual Wipe

Analytical Methods: Colorimeter

Purpose: To evaluate supplied products for rust removal

Experimental Procedure: Aluminum coupons were selected based on the level of oxidation and grime remaining on the surface. Coupons that were not shiny and had visible grey areas were determined to be the best samples to take. Baseline gloss/color readings were made of the dirty coupons using a BYK Spectro Guide unit.

Three cleaning products were used at the provided concentration. Each was sprayed three to four times onto a reinforced paper towel. The soaked rag was then used to wipe the aluminum coupon for a 30 second period. At the end of the cleaning, a clean gloss/color reading was made. In addition, visual rankings were made to determine which product worked the best.

Results: The T110 product and the T Minus Zero L were visually found to have the best effect on the oxidized surface following the cleaning process. The T Minus Zero C showed little improvement on gloss readings. The table lists the initial and final gloss readings for each of the coupons cleaned for the three products. The T Minus Zero L product had the greatest increase in gloss readings, averaging about an 8 point increase. The other two products had increases of 7.4 (T110) and 2.8 (T Minus Zero C). These changes were comparable to the visual rankings made as well. The table lists the gloss meter readings, the difference and the average increase in gloss readings.

Oxide removal	Set 1			Set 2			Set 3			
	Initial	Final	Diff	Initial	Final	Diff	Initial	Final	Diff	Ave
T110	69.73	74.52	4.79	66.96	76.20	9.24	64.88	73.03	8.15	7.39
T Minus Zero C	77.43	78.39	0.96	70.63	75.16	4.53	NT	NT	NT	2.75
T Minus Zero L	70.90	78.91	8.01	69.16	76.39	7.23	67.50	76.15	8.65	7.96
NT = not tested										

Summary:

Substrates:	Aluminum				
Contaminants:	Dirt, Oxides				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Bo Chem Company	T 110	100	0.00	☑	

Conclusion: A follow up test on heavily rusted surface will be run to determine level of oxide/grime removal.