CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	1999
DateRun:	03/28/1999
Experimenters:	Jason Marshall
ClientType:	Metal Working
ProjectNumber:	Project #1
Substrates:	Brass
PartType:	Part
Contaminants:	Buffing/Polishing Compounds, Cutting/Tapping Fluids, Lubricating/Lapping Oils, Waxes, Dirt, Oil
Cleaning Methods:	Immersion/Soak
Analytical Methods:	Visual
Purpose:	To clean client supplied parts using the two tested aqueous cleaners.
Experimental Procedure:	Two cleaners were used from the first trial at 10% dilutions. The solutions were heated to 130 F. Several parts were cleaned in each of the two cleaners. The inside of the large brass bucket was cleaned using one cleaner and the outside using the other. Parts were rinsed with a tap water spray at 120 F for one minute and dried using a Master Appliance Corp, Hot-air gun model HG at 500 F also for one minute. SUBSTRATE MATERIAL: Brass Parts CONTAMINANTS: Buffing Compound (Anchor Chemical Co, Anchor Spin G-10; Lea Manufacturing Company, 2-B-111; The Matchless Metal Polish Company, 516 Tripoli Compound); Oil; Wax; Dirt
Results:	The bucket cleaning removed most of the contaminants from the outside (Calgon) and some from the inside (Oakite). Figure 2 shows a before and after picture of the outside and inside of the bucket. Figure 2. Calgon and Oakite Cleaned Part From the pictures, the Calgon cleaned parts were cleaner than the Oakite section. The other parts were had comparable levels of cleanliness. The flat parts cleaned in the Calgon solution had some dark spots around the edges. It was noticed that one side of the flat parts was coated with a plastic layer. The dark spots had formed under this layer. To reduce this effect, a shorter cleaning time and or an increased drying time could be used. Both cleaners appear to remove most of the contaminants from the parts tested. Parts have been sent back for further client evaluation. The other parts sent to the lab will be cleaned in the next trial in Calgon only.

Summary:

Substrates:	Brass				
Contaminants:	Buffing/Polishing Compounds, Cutting/Tapping Fluids, Lubricating/Lapping Oils, Waxes, Dirt, Oil				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Calgon Corporation	Geo Guard 2215	10	0.00	☑	
Oakite Products	Inproclean 3800	10	0.00	☑	

Conclusion: Both cleaners appear to remove most of the contaminants from the parts tested. Parts have been sent back for further client evaluation. The other parts sent to the lab will be cleaned in the next trial in Calgon only.