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TO: W. E. LEEK

FROM: P. H. ECCLESTON

WD-40 GUN OIL  
Rocket Chemical Co., Inc., San Diego, Calif.

Evaluation of the sample gun oil submitted is complete. The tests included effect of the oil on materials normally encountered in guns and its ability to provide corrosion resistance.

Results of these tests are summarized as follows:

1. The sample gun oil has no adverse effect on Rubber Phenolic - General Purpose Phenolic - Tenite - Nylon - Delrin - Cyclocac and RK-W finish after 48 hours exposure.
2. The test oil showed good properties with regard to providing corrosion resistance.
3. In this test, Dulite Oil was superior to all other oils included.

Details of the Corrosion test follow:

Samples: Shotgun barrel sections finished through standard black oxide.

Coatings: A - Control - no oil  
B - Dulite EZ Oil  
C - Plant oil  
D - Hoppe's No. 9  
E - WD-40

Method of  
Application: Dip coat.

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Test #1 All samples subjected to the environmental cabinet running 90% R.H. at 120°F dry bulb for 6 days.

Result: No failures.

Test #2 Samples subjected to Salt Spray using 5% salt solution at 95°F for a maximum of 5 hours. Samples inspected for signs of rust each hour.

Results: Control	Failed at 1 hour.
Dulite	No failure after 5 hours.
Plant Oil	Failed at 2 hours.
Hoppe's	Failed at 3 hours.
WD-40	Failed at 4 hours.

Test #3 The Dulite sample with no failure was allowed to remain in the salt spray cabinet without spray until failure.

Results: Within 24 hours - failed.

PHE:c  
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